

CATALOGUE OF THE NAMES
PUBLISHED BY HECTOR LÉVEILLÉ : VII

L. A. LAUENER

ABSTRACT. The species described by Léveillé which belong to the families *Combretaceae*, *Myrtaceae*, *Melastomataceae*, *Lythraceae*, *Onagraceae*, *Passifloraceae*, *Cucurbitaceae* and *Begoniaceae* are evaluated. Other species described in, but not belonging to, these families are also included. Two new combinations are made: *Bredia esquirolii* (Lévl.) Lauener and *Ludwigia lagunae* (Morong) Hara subsp. *paraguayensis* (Chodat) Lauener.

INTRODUCTION

This paper follows the same format as those previously published and listed below.* The major part comprises *Onagraceae* but it should be pointed out that this family contains no original botanical research by the present author. The identity and placing of Léveillé's taxa in *Onagraceae*, and all the references, were culled from the literature. Most of Léveillé's taxa in *Onagraceae* were American and evaluation of these had already been made by Munz, Raven, Raven & Moore, Lewis & Lewis, etc. (cited in the text below). Asiatic taxa in *Epilobium* and *Ludwigia* were evaluated by Hara.

Very few of Léveillé's types in *Onagraceae* have been seen by the author as they were not included in the original Léveillé herbarium which is now in Edinburgh. Most of the type specimens are in American herbaria. However, since the intent of this catalogue is to show the identity of as many as possible of all Léveillé taxa except those confined to Europe, *Onagraceae* has been included for the sake of completeness.

Without the willing help of Professor Raven, Missouri, there would inevitably have been some errors or omissions and I am deeply grateful to him for vetting the preliminary and final manuscripts of *Onagraceae* and for making many suggestions during the course of its preparation.

My thanks are due also to Mr C. C. Jeffrey for so kindly checking and correcting the manuscript for *Cucurbitaceae*.

RHIZOPHORACEAE

Anisophyllea cavaleriei Lévl. = *Vaccinium foetidissimum* Lévl. & Van. (Vacciniaceae).

COMBRETACEAE

691. *Combretum wallichii* DC.; Exell in Sunyatsenia 1: 87 (1933); Rehder in Journ. Arn. Arb. 15: 108 (1934); Chao in Acta Phytotax. Sin. 7: 247 (1958).

Aspidopterys cavaleriei Lévl., Fl. Kouy-Tchéou 271 (1915) quoad spec. cit.—non Lévl. (1911).

Terminalia mairei Lévl., Cat. Pl. Yunnan 35 (1915).

Terminalia kouytchensis Lévl. nom. nud. = *Gouania javanica* Miq. (Rhamnaceae).

* Part I, Notes R.B.G. Edinb. 23: 573-596 (1961); II, 24: 73-78 (1962); III, 26: 333-346 (1966); IV, 27: 1-10 (1966); V, 27: 265-292 (1967); VI, 30: 239-294 (1970).

MYRTACEAE

692. *Decaspermum fruticosum* J. R. & G. Forst.; Rehder in Journ. Arn. Arb. 15: 109 (1934); Merrill & Perry in Journ. Arn. Arb. 19: 201 (1938).
Eugenia esquirolii Lévl. in Fedde, Rep. Sp. Nov. 9: 459 (1911) & Fl. Kouy-Tchéou 289 (1915).
Pirus bodinieri Lévl., Fl. Kouy-Tchéou 350 (1915).

MELASTOMATACEAE

Much of the synonymy and references given by Li in his "Studies in the Melastomataceae of China" are not repeated here. Important papers on Asiatic Melastomataceae are as follows:

- Diels, L.—*Bot. Jahrb.* 65: 97-119 (1932).
 Guillaumin, A.—*Not. Syst. (Paris)* 2: 301-329 (1913).
Bull. Soc. Bot. Fr. 60: 86-92, 273-276, 337-345, 362-371, 401-406 (1913).
 Keng, H.—*Quart. Journ. Taiwan Mus.* 8: 17-61 (1955).
 Li, H. L.—*Journ. Arn. Arb.* 25: 1-42, 309 (1944).
Taiwania 1: 129-139 (1950).
693. *Blastus cavaleriei* Lévl. & Van. in Mem. Soc. Nat. Sci. Nat. Cherbourg 35: 395 (1906) & in Fedde, Rep. Sp. Nov. 9: 94 (1907); Li in Journ. Arn. Arb. 25: 17 (1944).
Allomorpha bodinieri Lévl. in Fedde, Rep. Sp. Nov. 5: 100 (1908).
Bredia bodinieri Lévl. in Fedde, Rep. Sp. Nov. 5: 100 (1908) nom. nud. pro syn. sub *Allomorpha bodinieri*.
Blastus pauciflorus auct. non (Benth.) Guillaum.: Guillaum. in Bull. Soc. Bot. Fr. 60: 90 (1913) p.p.; Lévl., Fl. Kouy-Tchéou 276 (1915); Rehder in Journ. Arn. Arb. 15: 111 (1934).
694. *Blastus cochinchinensis* Lour.; Lévl., Fl. Kouy-Tchéou 276 (1915); Rehder in Journ. Arn. Arb. 15: 111 (1934); Li in Journ. Arn. Arb. 25: 14 (1944).
B. marchandii Lévl. in Fedde, Rep. Sp. Nov. 11: 494 (1913).
695. *Blastus dunnianus* Lévl. in Fedde, Rep. Sp. Nov. 9: 449 (1911) & Fl. Kouy-Tchéou 276 (1915); Rehder in Journ. Arn. Arb. 15: 111 (1934); Li in Journ. Arn. Arb. 25: 17 (1944).
696. *Bredia esquirolii* (Lévl.) Lauener, *comb. nov.*
Bredia cavaleriei (Lévl.) Diels in Bot. Jahrb. 65: 110 (1932); Rehder in Journ. Arn. Arb. 15: 112 (1934); Li in Journ. Arn. Arb. 25: 23 (1944)—non Lévl. & Van. (1906).
Barthea cavaleriei Lévl. in Fedde, Rep. Sp. Nov. 8: 61 (1910) p.p. quoad *Cavalerie* 1552 & *Esquirol* 1581.
Fordiophyton cavaleriei (Lévl.) Guillaum. in Bull. Soc. Bot. Fr. 60: 275 (1913) p.p. quoad specim. e Kweichow; Lévl., Fl. Kouy-Tchéou 276 (1915).

Barthea esquirolii Lévl. in Fedde, Rep. Sp. Nov. 11: 494 (1913).
Fordiophyton cavaleriei (Lévl.) Guillaum. var. *violacea* Lévl., Cat. Pl. Yunnan 176 (1916) nom. nud.

CHINA. Kweichow, Tchai-choui-ho, vii 1909, *Esquirol* 1581 (holo. *Barthea esquirolii*, *Bredia esquirolii*, syntype *Barthea cavaleriei*, E).

Cavalerie 1552 is a syntype of *Barthea cavaleriei* whilst *Esquirol* 1581 is a syntype of *Barthea cavaleriei* and the holotype of *Barthea esquirolii*. Diels, Rehder and Li overlooked the fact that *Bredia cavaleriei* (Lévl.) Diels was a later homonym of *Bredia cavaleriei* Lévl. & Van. (see no. 698) and thus required a new name.

Whereas Guillaumin thought that *Esquirol* 1581 might be the same as *Cavalerie* 1552, Diels thought that it was too incomplete to be determined. Apart from the calyx of the *Esquirol* collection being not quite so verrucose the two specimens appear to be the same.

697. *Bredia yunnanensis* (Lévl.) Diels; Rehder in Journ. Arn. Arb. 15: 112 (1934); Li in Journ. Arn. Arb. 25: 24 (1944).

Blastus yunnanensis Lévl. in Fedde, Rep. Sp. Nov. 11: 300 (1912).

Blastus mairei Lévl. in Fedde, Rep. Sp. Nov. 11: 300 (1912).

Fordiophyton cavaleriei (Lévl.) Guillaum. in Bull. Soc. Bot. Fr. 60: 275 (1913) p.p. quoad specim. e Yunnan.

Driessenia sinensis Lévl. = *Pouzolzia hirta* (Bl.) Hassk. (Urticaceae).

698. *Fordiophyton faberi* Stapf; Lévl., Fl. Kouy-Tchéou 276 (1915); Rehder in Journ. Arn. Arb. 15: 112 (1934); Li in Journ. Arn. Arb. 25: 27 (1944).

Bredia cavaleriei Lévl. & Van. in Mem. Soc. Nat. Sci. Nat. Cherbourg 35: 396 (1906) & in Fedde, Rep. Sp. Nov. 4: 94 (1907).

Oxyspora (Allomorpha) cavaleriei Lévl. in Mem. Soc. Nat. Sci. Nat. Cherbourg 35: 396 (1906) & in Fedde, Rep. Sp. Nov. 4: 94 (1907) nom. nud. pro syn. sub *Bredia cavaleriei*.

Bredia mairei Lévl. in Fedde, Rep. Sp. Nov. 11: 300 (1912).

Blastus lyi Lévl. in Fedde, Rep. Sp. Nov. 11: 301 (1912).

699. *Melastoma normale* D. Don; Lévl., Fl. Kouy-Tchéou 277 (1915); Lévl., Cat. Pl. Yunnan 176 (1916) excl. syn. *Melastoma mairei* Lévl.; Rehder in Journ. Arn. Arb. 15: 109 (1934); Li in Journ. Arn. Arb. 25: 8 (1944).

M. cavaleriei Lévl. in Fedde, Rep. Sp. Nov. 3: 21 (1906).

M. esquirolii Lévl. in Fedde, Rep. Sp. Nov. 8: 61 (1910).

700. *Osbeckia crinita* [Benth. ex] C. B. Clarke; Rehder in Journ. Arn. Arb. 15: 109 (1934); Li in Journ. Arn. Arb. 25: 4 (1944).

O. crinita [Benth. ex] C. B. Clarke var. *yunnanensis* Cogn. in DC., Monog. Phan. 7: 324 (1891); Lévl., Fl. Kouy-Tchéou 277 (1915) & Cat. Pl. Yunnan 176 (1916).

Melastoma mairei Lévl. in Fedde, Rep. Sp. Nov. 11: 300 (1912).

Osbeckia mairei Craib in Notes R.B.G. Edinb. 10: 54 (1917).

Melastoma mairei and *Osbeckia mairei* were described and based on two different specimens from the same Maire collection.

701. *Oxyspora paniculata* DC.; Rehder in Journ. Arn. Arb. 15: 110 (1934); Li in Journ. Arn. Arb. 25: 12 (1944).

Bredia soneriloides Lévl. in Fedde, Rep. Sp. Nov. 9: 21 (1910).

Sonerila cavaleriei Lévl. in Fedde, Rep. Sp. Nov. 9: 21 (1910) nom. nud. pro syn. sub *Bredia soneriloides* Lc. 11: 494 (1913).

702. *Phyllagathis cavaleriei* (Lévl. & Van.) Guillaum.; Lévl., Fl. Kouy-Tchéou 277 (1915) & Cat. Pl. Seu-Tchouen 117, Pl. 53 (1918); Rehder in Journ. Arn. Arb. 15: 113 (1934) & 18: 227 (1937); Li in Journ. Arn. Arb. 25: 30 (1944).

Allomorphia cavaleriei Lévl. & Van. in Mem. Soc. Nat. Sci. Nat. Cherbourg 35: 394 (1906) & in Fedde, Rep. Sp. Nov. 4: 94 (1907).

Oxyspora cavaleriei Lévl. in Mem. Soc. Nat. Sci. Nat. Cherbourg 35: 394 (1906) & in Fedde, Rep. Sp. Nov. 4: 94 (1907) nom. nud. pro syn. sub *Allomorphia cavaleriei*.

703. *Plagiopetalum esquirolii* (Lévl.) Rehder in Journ. Arn. Arb. 15: 110 (1934); Li in Journ. Arn. Arb. 25: 10 (1944).

Sonerila esquirolii Lévl. in Bull. Soc. Bot. Fr. 54: 368 (1907)—non Lévl. (1913).

Barthea cavaleriei Lévl. in Fedde, Rep. Sp. Nov. 8: 61 (1910) p.p. quoad *Esquirol* 215.

Barthea blinii Lévl. in Fedde, Rep. Sp. Nov. 11: 494 (1913).

Allomorphia blinii (Lévl.) Guillaum. in Bull. Soc. Bot. Fr. 60: 87 (1913); Lévl., Fl. Kouy-Tchéou 276 (1915).

Sonerila esquirolii Lévl. in Fedde, Rep. Sp. Nov. 11: 494 (1913)—non Lévl. (1907).

704. *Sarcopyramis nepalensis* Wall.; Rehder in Journ. Arn. Arb. 18: 227 (1937); Li in Journ. Arn. Arb. 25: 25 (1944).

S. bodinieri Lévl. & Van. in Mem. Soc. Nat. Sci. Nat. Cherbourg 35: 397 (1906) & in Fedde, Rep. Sp. Nov. 4: 95 (1907).

S. nepalensis Wall. var. *bodinieri* (Lévl. & Van.) Lévl., Fl. Kouy-Tchéou 278 (1915).

LYTHRACEAE

705. *Diplusodon virgatus* Pohl in Flora 10: 151 (1827); Munz in Brittonia 13: 90 (1961).

Lopezia glazioui Lévl. in Fedde, Rep. Sp. Nov. 4: 226 (1907).

BRAZIL. Rio Janeiro, Ouro-Preto, 1883-4, *Glaziou* 14701 (typus *L. glazioui* —n.v.).

706. *Lythrum salicaria* L., Sp. Pl. 446 (1753).

L. argyi Lévl. in Fedde, Rep. Sp. Nov. 4: 330 (1907) & in Mem. Real Acad. Ci. Art. Barcelona ser. 3, 12: 556 (1916).

L. salicaria L. var. *mairei* Lévl., Cat. Pl. Yunnan 172 (1916).

CHINA. Kiangsu, *d'Argy* s.n. (holo. *L. argyi*, E).

Léveillé did not cite any specimens under his var. *mairei* nor is this name written on any of the Yunnan sheets. However, this variety was possibly intended for two Maire collections from Ou-li-pai and Ma-li-ouan. To both of these sheets, Léveillé's description "Flores roseo-malvacei; tota planta aspera et densa villositate oblecta" could apply.

707. *Rotala rotundifolia* (Ham. ex Roxb.) Koehne in Bot. Jahrb. 1: 175 (1880); Hara, Fl. E. Himal. 218 (1966).

Ammania rotundifolia [Ham. ex] Roxb., Fl. Ind. 1: 446 (1820); Ham. in D. Don, Prodr. Fl. Nep. 220 (1825).

Halorrhagis esquirolii Lévl., Fl. Kouy-Tchéou 192 (1914) nom. nud.

708. *Woodfordia fruticosa* (L.) S. Kurz; Hand.-Mazz., Symb. Sin. 7: 593 (1933); Rehder in Journ. Arn. Arb. 15: 107 (1934).

Lythrum fruticosum L., Sp. Pl. ed. 2, 641 (1762).

Woodfordia floribunda Salisb. in Parad. Lond. t. 42 (1806).

Lonicera androsaemifolia Lévl., Fl. Kouy-Tchéou, 62 (1914).

CHINA. Kweichow, Lo-fou, rouge jaune, iii 1909, *Cavalerie* 3487; Kweichow, 650 m, arb. 2-3 m, versants et région du fleuve, beau rouge, tout le mois de mars, 1913, *Esquirol* 3541 (syntypes *L. androsaemifolia*, E).

Rehder cited *Cavalerie* 3487 as the holotype but in the Flore du Kouy-Tchéou, Léveillé cited both above collections without designating a type.

ONAGRACEAE

Much of the synonymy and many references are omitted in *Onagraceae* for the sake of brevity and to avoid repetition. However, a list of the major papers involved is appended below.

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| <i>Boisduvalia</i> | Munz in Darwiniana 5: 125-153 (1941). |
| | Raven & Moore in Brittonia 17: 238-254 (1965). |
| <i>Calylophus</i> | Towner & Raven in Madroño 20: 241-245 (1970). |
| <i>Camissonia</i> | Raven in Univ. Calif. Publ. Bot. 34: 1-122 (1962). |
| | Raven in Contr. U.S. Nat. Herb. 37: 161-396 (1969). |
| <i>Clarkia</i> | H. Lewis & M. E. Lewis in Univ. Calif. Publ. Bot. 20: 241-392 (1955). |
| <i>Epilobium</i> | Léveillé in Bull. Soc. Bot. Fr. 54: 519-524 (1907). |
| | Léveillé in Bull. Acad. Géog. Bot. 17: 241-305 (1907). |
| | Nakai in Bot. Mag. Tokyo 22: 73-76 (1908). |
| | Léveillé, Icon. 1-326 (1910-1911). |
| | Raven in Bothalia 9: 309-333 (1967). |
| <i>Fuchsia</i> | Munz in Proc. Calif. Acad. Sci. 25: 1-137 (1943). |
| | Breedlove in Univ. Calif. Publ. Bot. 53: 1-69 (1969). |
| <i>Gayophytum</i> | Munz in Amer. Journ. Bot. 19: 768-778 (1932). |
| | Lewis & Szwedkowski in Brittonia 16: 343-391 (1964). |
| <i>Lopezia</i> | Munz in Brittonia 13: 73-90 (1961). |
| <i>Ludwigia</i> | Raven in Reinwardtia 6: 327-427 (1963). |

- Oenothera* Léveillé & Guffroy, Monog. 1-466 (1902-13).
 Léveillé in Bull. Acad. Géog. Bot. 18: 256-332 (1908),
 l.c. 19: 293-368 (1909).
 Munz & Johnston in Contr. Gray Herb. n.s. 75: 15-23
 (1925).

Studies in Onagraceae by P. A. Munz:—

1, Amer. Journ. Bot. 15: 223-240 (1928); 2, Bot. Gaz. (U.S.A.) 85: 233-270 (1928); 3, Amer. Journ. Bot. 16: 246-257 (1929); 4, Amer. Journ. Bot. 16: 702-715 (1929); 5, Amer. Journ. Bot. 17: 358-370 (1930); 6, Amer. Journ. Bot. 18: 309-327 (1931); 7, Amer. Journ. Bot. 18: 728-738 (1931); 8, Amer. Journ. Bot. 19: 755-778 (1932) (includes *Gayophytum*); 9, Amer. Journ. Bot. 22: 645-663 (1935); 10, Bull. Torr. Bot. Club 64: 287-306 (1937); 11, Bull. Torr. Bot. Club 65: 105-122, 211-228 (1938); 12, Darwiniana 4: 179-284 (1942), (*Jussiaea*). *Onagraceae*. Munz in N. Am. Flora 5: 1-278 (1965).

709. *Boisduvalia cleistogama* Curran in Bull. Calif. Acad. Sci. 1: 12 (1884); Raven & Moore in Brittonia 17: 253 (1965); Munz in N. Am. Flora 5: 230 (1965).

Oenothera cleistogama (Curran) Lévl., Monog. Onoth. 304 (1908).

710. *Boisduvalia densiflora* (Lindl.) S. Wats., Bot. Calif. 1: 233 (1876); Raven & Moore in Brittonia 17: 249 (1965); Munz in N. Am. Flora 5: 229 (1965).

Oenothera densiflora (S. Wats.) Lévl. var *imbricata* (Greene) Lévl., Monog. Onoth. 302 (1908).

O. densiflora (S. Wats.) Lévl. is a later synonym of *O. densiflora* Lindl.

711. *Boisduvalia glabella* (Nutt.) Walp., Repert. 2: 89 (1843); Raven & Moore in Brittonia 17: 253 (1965).

? *Oenothera glabella* Nutt. race *commixta* [Guffroy ex] Lévl., Monog. Onoth. 308 (1908); Munz in N. Am. Flora 5: 231 (1965).

712. *Boisduvalia stricta* (A. Gray) Greene, Fl. Francisc. 225 (1891); Raven & Moore in Brittonia 17: 247 (1965).

x *Oenothera torreyoides* Lévl., Monogr. Onoth. 306 (1908); Munz in N. Am. Flora 5: 231 (1965).

U.S.A. Washington, Klickitat County, Falcon Valley, 30 vii 1885, *Suksdorf* 343 (lecto. x *O. torreyoides*, MO, iso. ND—n.v.).

713. *Boisduvalia subulata* (Ruiz & Pav.) Raimann in Engl. & Prantl, Natürl. Pflanzenfam. III, 7: 212 (1893); Raven & Moore in Brittonia 17: 244 (1965).

Oenothera subulata Ruiz & Pav. race *concinna* (D. Don.) Lévl., Monog. Onoth. 298 (1908).

O. volkmanni (Phil.) Lévl. & Guffr. in Lévl., Monog. Onoth. 299 (1908).

O. toconalii (C. Gay) Lévl., Monog. Onoth. 297 (1908) in syn.

714. *Calylophus drummondianus* Spach in Ann. Sci. Nat. Bot. II, 4: 272 (1835); Towner & Raven in Madroño 20: 243 (1970).

Oenothera serrulata Nutt. var. *drummondii* Torr. & Gray, Fl. N. Amer. 1: 502 (1840); Munz in Amer. Journ. Bot. 16: 714 (1929).

O. serrulata Nutt. var. *maculata* Lévl., Monog. Onoth. 336 (1908).

U.S.A. Texas, Kerr Co., Kerrville, 1600-2000 ft., 19-25 iv 1894, Heller 1600 (syntype var. *maculata*, E, GH, MO.—n.v.); Gillespie Co., Tyvidale, G. Jermy s.n. (syntype—n.v.); San Antonio, 28 iv 1896, F. Lindheimer 393 (syntype, GH, MO—n.v.).

715. *Calylophus hartwegii* (Benth.) Raven subsp. *filifolius* (Eastw.) Towner & Raven in Madroño 20: 243 (1970).

Oenothera hartwegii Benth. var. *filifolia* (Eastw.) Munz in Amer. Journ. Bot. 16: 707 (1929).

O. hartwegi Benth. var. *fendleri* (Gray) Gray subvar. *filifolia* (Eastw.) Lévl., Monog. Onoth. 335 (1908) p.p.

716. *Calylophus lavandulifolius* (Torr. & Gray) Raven in Brittonia 16: 286 (1964).

Oenothera lavandulaefolia Torr. & Gray, Fl. N. Amer. 1: 501 (1840); Munz in Amer. Journ. Bot. 16: 704 (1929).

O. hartwegi Benth. var. *fendleri* (Gray) Gray subvar. *lavandulaefolia* (Torr & Gray.) Lévl., Monog. Onoth. 334 (1908) p.p.

717. *Calylophus serrulatus* (Nutt.) Raven in Brittonia 16: 286 (1964); Towner & Raven in Madroño 20: 243 (1970).

Oenothera serrulata Nutt., Gen. N. Amer. 1: 246 (1818); Munz in Amer. Journ. Bot. 16: 712 (1929).

O. serrulata Nutt. var. *integrifolia* Lévl., Monog. Onoth. 337 (1908).

U.S.A. Sine loc., 1845, Frémont 47 (typus var. *integrifolia* — n.v.).

718. *Calylophus tubicula* (Gray) Raven in Brittonia 16: 286 (1964); Towner & Raven in Madroño 20: 243 (1970).

Oenothera tubicula Gray in Smithson. Contr. Knowl. 3, 5: 71 (1852); Munz in Amer. Journ. Bot. 16: 703 (1929).

O. hartwegi Benth. var. *tubicula* (Gray) Lévl., Monog. Onoth. 335 (1908).

x *O. serrulatoides* Lévl. (*O. tubicula* x *serrulata*), Monog. Onoth. 335 (1908).

U.S.A. Texas, Pecos, vi 1851, Wright 1077 (typus x *O. serrulatoides*, GH, US — n.v.).

719. *Camissonia andina* (Nutt.) Raven in Brittonia 16: 285 (1964) & in Contr. U.S. Nat. Herb. 37: 378 (1969).

Oenothera andina Nutt. in Torr. & Gray f. *tripetala* Lévl., Monog. Onoth. 182 (1905).

No specimens were cited by Léveillé.

720. *Camissonia bistorta* (Nutt. ex Torr. & Gray) Raven in Brittonia 16: 284 (1964) & in Contr. U.S. Nat. Herb. 37: 267 (1969).

Oenothera cheiranthifolia [Hornem ex] Spreng. f. *delicatula* Lévl., Monog. Onoth. 216 (1905).

No specimens were cited by Léveillé.

721. *Camissonia boothii* (Dougl. ex Lehm.) Raven in Brittonia 16: 285 (1964); & in Contr. U.S. Nat. Herb. 37: 365 (1969).

Oenothera gauraeflora Torr. & Gray race *boothii* (Dougl. ex Lehm.) Lévl., Monog. Onoth. 226 (1905).

722. *Camissonia boothii* (Dougl. ex Lehm.) Raven subsp. *alyssoides* (Hook. & Arn.) Raven in Brittonia 16: 285 (1964) & in Contr. U.S. Nat. Herb. 37: 362 (1969).

Oenothera gauraeflora Torr. & Gray var. *hitchcockii* Lévl., Monog. Onoth. 226 (1905).

U.S.A. Utah, Simpson's Park, 6 vii 1859, collector not known (typus MO — n.v.).

723. *Camissonia californica* (Nutt. ex Torr. & Gray) Raven in Brittonia 16: 283 (1964) & in Contr. U.S. Nat. Herb. 37: 197 (1969).

Oenothera crassifolia Greene var. *leptocarpa* (Greene) Lévl., Monog. Onoth. 209 (1905).

O. eulobus Lévl., Monog. Onoth. 231 (1905).

U.S.A. S California, vicinity of Riverside, in the Sonoran zone, 1300 ft., iv 1903, H. M. Hall 3808 (typus var. *leptocarpa* — n.v.)

O. eulobus is a substitute name for "*Eulobus californicus* Watson" & "*O. californica* Greene".

724. *Camissonia campestris* (Greene) Raven in Brittonia 16: 284 (1964) & in Contr. U.S. Nat. Herb. 37: 321 (1969).

Oenothera torulosa Lévl. race *helianthemiflora* Lévl., Monog. Onoth. 178 (1905).

O. torulosa Lévl. f. *permixta* Lévl., Monog. Onoth. 180 (1905).

U.S.A. California, Mojave Desert, v 1882, S. B. & W. F. Parish 1304 (lecto. — race *helianthemiflora*, MO — n.v.); Fresno Co., Fresno, 21 iii 1889, collector unknown (typus f. *permixta*, presumably MO — n.v.).

O. torulosa Lévl. (Monog. Onoth. 176 : 1905) according to Raven (l.c. 308) is an illegitimate substitute name.

725. *Camissonia cheiranthifolia* (Hornem. ex Spreng.) Raimann in Engl. & Prantl, Nat. Pflanzenfam. III, 7: 217 (1893); Raven in Brittonia 16: 284 (1964) & in Contr. U.S. Nat. Herb. 37: 258 (1969).

Oenothera spiralis Hook. f. *arcuata* Lévl., Monog. Onoth. 222 (1905); f. *clypeata* Lévl., l.c. 222 (1905).

No specimens were cited by Léveillé. See Raven (p. 258) for comment on Léveillé's two forms.

- 726. *Camissonia cheiranthifolia*** (Hornem. ex Spreng.) Raimann subsp. *suffruticosa* (S. Wats.) Raven in Brittonia 16: 284 (1964) & in Contr. U.S. Nat. Herb. 37: 259 (1969).

Oenothera spiralis Hook. f. *viridescens* (Hook.) Lévl., Monog. Onoth. 222 (1905).

- 727. *Camissonia contorta*** (Dougl.) Kearney in Trans. N.Y. Acad. Sci. 14: 37 (1894); Raven in Brittonia 16: 284 (1964) & in Contr. U.S. Nat. Herb. 37: 345 (1969).

Oenothera torulosa Lévl. f. *cruciata* (S. Wats.) Lévl., Monog. Onoth. 180 (1905); f. *mixta* Lévl., l.c. 180 (1905).

O. cheiranthifolia [Hornem. ex] Spreng. var. *contorta* (Dougl.) Lévl., Monog. Onoth. 216 (1905).

Raven says the type of f. *mixta* is possibly at MO.

- 728. *Camissonia crassifolia*** (Greene) Raven in Brittonia 16: 283 (1964) & in Contr. U.S. Nat. Herb. 37: 190 (1969).

Oenothera genistifolia Lévl., Monog. Onoth. 208 (1905) nom. nud. in syn.

- 729. *Camissonia dentata*** (Cav.) Reiche, Fl. Chile 2: 264 (1898); Raven in Brittonia 16: 284 (1964) & in Contr. U.S. Nat. Herb. 37: 341 (1969).

Oenothera torulosa Lévl. f. *chilensis* (D. Dietr.) Lévl., Monog. Onoth. 180 (1905).

- 730. *Camissonia hirtella*** (Greene) Raven in Brittonia 16: 284 (1964) & in Contr. U.S. Nat. Herb. 37: 282 (1969).

Oenothera jonesii Lévl. in Bull. Acad. Géog. Bot. 8: (1898) pl. sine textu & in Monog. Onoth. 211 (1905) in syn.

O. austrani Lévl. in Bull. Acad. Géog. Bot. 8: (1898) pl. sine textu & in Monog. Onoth. 211 (1905) in syn.

O. arabifolia Lévl., Monog. Onoth. 211 (1905) nom. nud. in syn.

O. hirta Link var. *jonesii* Lévl., Monog. Onoth. 213 (1905).

U.S.A. California, Amador Co., Drytown, 500 ft., vii 1893, *Hansen* 543 (lecto. var. *jonesii*, DS, isotypes E, NY, POM, UC).

The plate of *O. jonesii* is that of *M. E. Jones* 2231. Munz (Bot. Gaz. (U.S.A.) 85, 262: 1928) says that Léveillé's description of var. *jonesii* refers to the plate showing *Jones* 2231, and which Munz correctly took to be the type although *Hansen* 543 was the first of 3 specimens of var. *jonesii* cited by Léveillé.

The plate of *O. austrani* figures *Palmer* 102 from San Diego, which according to Jepson (Fl. Calif. 2, 586: 1936) is *O. micrantha* Hornem. var. *jonesii* (Lévl.) Munz, a synonym of *C. hirtella*.

731. *Camissonia minor* (A. Nels.) Raven in Brittonia 16: 285 (1964) & in Contr. U.S. Nat. Herb. 37: 371 (1969).

Oenothera chamaenerioides Gray var. *torta* Lévl., Monog. Onoth. 230 (1905).

U.S.A. Wyoming, Sweetwater Co., Granger, 3 vi 1898, *A. Nelson* 4691 (lecto. var. *torta* MO, isolecto. F, GH, NY, RM, UC, US, — n.v.).

732. *Camissonia nevadensis* (Kell.) Raven in Brittonia 16: 285 (1964) & in Contr. U.S. Nat. Herb. 37: 369 (1969).

Oenothera gauraeflora Torr. & Gray var. *caput-medusae* Lévl., Monog. Onoth. 226 (1905).

U.S.A. California, Sierra Nevada, E slopes, 1875, *J. G. Lemmon* 102; Nevada, Reno foothills, 10 vi 1897, *M. E. Jones* 5500 (lecto. var. *caput-medusae*, MO, iso. POM, UC, US — n.v.).

733. *Camissonia ovata* (Nutt. ex Torr. & Gray) Raven in Brittonia 16: 283 (1964) & in Contr. U.S. Nat. Herb. 37: 238 (1969).

Oenothera primuloidea Lévl., Monog. Onoth. 65 (1902) p.p. nom. subs.

See also under *Camissonia subacaulis* (no. 736).

734. *Camissonia parryi* (S. Wats.) Raven in Brittonia 16: 282 (1964) & in Contr. U.S. Nat. Herb. 37: 227 (1969).

Oenothera brevipes Gray race *parryi* (S. Wats.) Lévl., Monog. Onoth. 146 (1905).

735. *Camissonia scapoidea* (Torr. & Gray) Raven in Brittonia 16: 95 (1964) & in Contr. U.S. Nat. Herb. 37: 224 (1969).

Oenothera brevipes Gray var. *scapoidea* (Torr. & Gray) Lévl., Monog. Onoth. 146 (1905).

736. *Camissonia subacaulis* (Pursh) Raven in Brittonia 16: 283 (1964) & in Contr. U.S. Nat. Herb. 37: 242 (1969).

Oenothera primuloidea Lévl., Monog. Onoth. 65 (1902) p.p. nom. subs.

737. *Circaea alpina* L. subsp. *imaicola* (Asch. & Magnus) Kitamura, Fl. Afghan., 279 (1960).

C. alpina L. var. *imaicola* Asch. & Magnus in Bot. Zeitg. 28: 74 (1870).

C. lutetiana L. race *erubescens* (Franch. & Sav.) Lévl. var. *mairei* Lévl. in Bull. Acad. Géog. Bot. 22: 219 (1912).

Circaea pricei Hayata, Ic. Pl. Form. 5: 72 (1915).

C. imaicola (Asch. & Magnus) Hand.-Mazz., Symb. Sin. 7: 603 (1933).

C. imaicola (Asch. & Magnus) Hand.-Mazz. var. *angustifolia* Hand.-Mazz., Symb. Sin. 7: 603 (1933).

C. imaicola (Asch. & Magnus) Hand.-Mazz. var. *mairei* (Lévl.) Hand.-Mazz., Symb. Sin. 7: 603 (1933).

C. pricei Hayata var. *mairei* (Lévl.) Hand.-Mazz., Symb. Sin. 7: 1376 (1936).

CHINA. Yunnan, forêts des montagnes, viii 1905, *Maire* s.n. (typus var. *mairei* — n.v.).

738. *Circaea alpina* L. subsp. *pacifica* (Asch. & Magnus) Raven in Canad. Journ. Bot. 43: 1396 (1965).

C. pacifica Asch. & Magnus f. *dentata* Lévl. in Bull. Acad. Géog. Bot. 22: 222 (1912).

U.S.A. Idaho, Utah, Colorado. No specimens were cited under f. *dentata*.

739. *Circaea cordata* Royle, Ill. Bot. Him. 211, t. 43, f. 1 (1835); Hara, Enum, Sperm. Jap. 3: 261 (1954).

C. bodinieri Lévl. in Bull. Acad. Géog. Bot. 22: 224 (1912) nom. nud. in nota.

740. *Circaea erubescens* Franch. & Sav., Enum. Pl. Jap. 1. 170 (1873) nom. nud. & 2: 370 (1878); Hand.-Mazz., Symb. Sin. 7: 604 (1933); Hara, Enum. Sperm. Jap. 3: 261 (1954); Ohwi, Fl. Jap. (Engl. ed.) 655 (1965).

C. delavayi Lévl. in Fedde, Rep. Sp. Nov. 8: 138 (1910), in Bull. Acad. Géog. Bot. 22: 222 (1912), Cat. Pl. Yunnan, 185 (1916) & Fl. Kouy-Tchéou 300 (1915).

C. lutetiana L. race *erubescens* (Franch. & Sav.) Lévl. in Bull. Acad. Géog. Bot. 22: 219 (1912).

CHINA. Yunnan, Tchen-Fong-Chan, bois des hautes montagnes, vii 1894, *Delavay* 5021, 5176 (syntypes *C. delavayi* — n.v.).

741. *Circaea* x *intermedia* Ehrh., Beitr. Naturk. 4: 42 (1789); Raven in Fl. Europ. 2: 306 (1968).

C. lutetiana L. var. *intermedia* (Ehrh.) Lévl. in Bull. Acad. Géog. Bot. 9: 91 (1900).

742. *Circaea mollis* Sieb. & Zucc. in Abhand. Akad. Münch. 4, 2: 134 (1845); Nakai in Bull. Nat. Sci. Mus. Tokyo no. 31: 81 (1952) p.p. excl. syn.; Hara, Enum. Sperm. Jap. 3: 262 (1954); Ohwi, Fl. Jap. (Engl. ed.) 655 (1965).

C. coreana Lévl. in Fedde, Rep. Sp. Nov. 4: 226 (1907).

C. lutetiana L. var. *taquetii* Lévl. in Fedde, Rep. Sp. Nov. 7: 340 (1909) & in Bull. Acad. Géog. Bot. 22: 219 (1912); Nakai in Journ. Coll. Sci. Imp. Univ. Tokyo 31: 489 (1911).

KOREA. Hoang-Hei-To, viii 1906, *Faurie* 654 (typus *C. coreana* — n.v.); Quelpaert, in sylvis Yengsil, 1000 m, 17 viii 1908, *Taquet* 828 (typus var. *taquetii* — n.v.).

743. *Circaea quadrisulcata* (Maxim.) Franch. & Sav., Enum. Pl. Jap. 1: 169 (1873); Kitagawa in Rep. Inst. Sci. Res. Manch. 3: App. 1, 328 (1939); Nakai in Bull. Nat. Sci. Mus. Tokyo no. 31: 81 (1952); Hara, Enum. Sperm. Jap. 3: 262 (1954); Ohwi, Fl. Jap. (Engl. ed.) 655 (1965).

C. lutetiana L. f. *quadrifurcata* Maxim. in Mém. Acad. Imp. Sci. St. Pétersb. 9: 106 (1859).

C. mollis Sieb. & Zucc. var. *maximowiczii* Lévl. in Bull. Acad. Géog. Bot. 22: 223 (1912).

C. maximowiczii (Lévl.) Hara in Journ. Jap. Bot. 10: 598 (1934).

Léveillé's varietal name was merely intended as a taxonomic change for Maximowicz's form.

UNPLACED CIRCAEA

C. coreana Lévl. var. *sinensis* Lévl. in Fedde, Rep. Sp. Nov. 4: 226 (1907)
CHINA. Kweichow, *Esquirol* 647 (typus — n.v.).

C. lutetiana f. *pseudocordata* Lévl. in Bull Acad. Géog. Bot. 22: 218 (1912).
C. lutetiana f. *hirtopetiolata* Lévl., l.c.

No specimens were cited.

744. *Clarkia amoena* Lehm., Ind. Sem. Hort. Hamb. 8 (1821); Lewis & Lewis in Univ. Calif. Publ. Bot. 20: 263 (1955).

Oenothera prismatica Lévl. var. *amoena* (Lehm.) Lévl., Monog. Onoth. 266 (1908).

O. prismatica Lévl. and *O. auricula* Lévl. are all-embracing illegitimate substitute names and only their infraspecific taxa can be evaluated.

745. *Clarkia amoena* Lehm. subsp. *whitneyi* (Gray) Lewis & Lewis in Univ. Calif. Publ. Bot. 20: 265 (1955).

Oenothera auricula Lévl. var. *whitneyi* (Gray) Lévl., Monog. Onoth. 270 (1908).

746. *Clarkia biloba* (Dur.) Nels. & Macbride in Bot. Gaz. (U.S.A.) 65: 60 (1918) in adnot.; Lewis & Lewis in Univ. Calif. Publ. Bot. 20: 321 (1955).

Oenothera prismatica Lévl. var. *biloba* (Dur.) Lévl., Monog. Onoth. 264 (1908).

747. *Clarkia bottae* (Spach) Lewis & Lewis in Madroño 12: 33 (1953) & in Univ. Calif. Publ. Bot. 20: 315 (1955).

Oenothera auricula Lévl. var. *bottae* (Spach) Lévl., Monog. Onoth. 270 (1908).

748. *Clarkia breweri* (Gray) Greene in Pittonia 1: 141 (1887); Lewis & Lewis in Univ. Calif. Publ. Bot. 20: 361 (1955).

Oenothera eucharidium Lévl., Monog. Onoth. 332 (1908).

O. breweri Lévl., Monog. Onoth. 332 (1908) nom. nud.; *O. fischeri* Lévl., l.c. 332 (1908) nom. nud.; *O. meyeri* Lévl., l.c. 323 (1908) nom. nud.

O. eucharidium Lévl. was a nomen novum for *Eucharidium breweri* Gray.

749. *Clarkia pulchella* Pursh, Fl. Am. Sept. 1: 260 (1814); Lewis & Lewis in Univ. Calif. Publ. Bot. 20: 355 (1955).

Oenothera pulchella (Pursh) Lévl., Monog. Onoth. 288 (1908).

750. *Clarkia purpurea* (Curtis) Nelson & McBride subsp. *quadrivulnera* (Douglas) Lewis & Lewis in Univ. Calif. Publ. Bot. 20: 305 (1955).

Oenothera pulcherrima (Greene) Lévl., var. *brauntoni* Lévl., Monog. Onoth. 261 (1908).

O. prismatica Lévl. var. *quadrivulnera* (Douglas) Lévl., Monog. Onoth. 267 (1908).

U.S.A. California, Los Angeles, I vi 1902, *E. Braunton* s.n. (iso. var. *brauntoni*, DS — n.v.).

There is a Braunton specimen collected on 4th June, at Edinburgh. *Godetia pulcherrima* Greene (*O. pulcherrima* (Greene) Lévl.) is listed and discussed by Lewis & Lewis (p. 363) under "Excluded Names". Munz (N. Am. Flora 5, 78: 1965) stated that the type of *Godetia pulcherrima* had not been found.

751. *Clarkia purpurea* (Curtis) Nelson & McBride subsp. ***viminea*** (Douglas) Lewis & Lewis in Univ. Calif. Publ. Bot. 20: 303 (1955).

Oenothera prismatica Lévl. var. *viminea* (Douglas) Lévl., Monog. Onoth. 265 (1908).

O. auricula Lévl. var. *tenella* (Cav.) Lévl. subvar. *williamsoni* (Dur. & Hilg.) Lévl. f. *vimineiformis* Lévl., Monog. Onoth. 272 (1908).

U.S.A. Oregon, Umpqua Valley, 18 vi 1887, Howell 1144 (typus f. *vimineiformis* — n.v.).

752. *Clarkia rhomboidea* Dougl. in Hook., Fl. Bot. Am. 1: 214 (1834); Lewis & Lewis in Univ. Calif. Publ. Bot. 20: 352 (1955).

Oenothera rhomboidea (Dougl.) Lévl., Monog. Onoth. 287 (1908).

O. lancifolia Lévl., Monog. Onoth. 287 (1908) nom. nud. in syn.

Clarkia lancifolia Lévl., Monog. Onoth. 287 (1908) nom. nud. in syn.

753. *Clarkia tenella* (Cav.) Lewis & Lewis in Madroño 12: 34 (1953) & in Univ. Calif. Publ. Bot. 20: 293 (1955); Moore & Lewis in Bol. Soc. Arg. Bot. 10: 334 (1965).

O. prismatica Lévl. var. *dasycarpa* (Phil.) Lévl., Monog. Onoth. 265 (1908).

O. auricula Lévl. var. *tenella* (Cav.) Lévl., l.c. 270 (1908).

754. *Clarkia tenella* (Cav.) Lewis & Lewis subsp. ***tenuifolia*** (Cav.) Moore & Lewis in Bol. Soc. Arg. Bot. 10: 335 (1965).

Oenothera prismatica Lévl. var. *tenuifolia* (Cav.) Lévl., Monog. Onoth. 265 (1908).

O. prismatica Lévl. var. *gayana* (Spach) Lévl., l.c. 268 (1908).

755. *Clarkia unguiculata* Lindl. in Edwards's Bot. Reg. 23: t. 1981 (1837); Lewis & Lewis in Univ. Calif. Publ. Bot. 20: 340 (1955).

Oenothera elegans (Dougl.) Lévl., Monog. Onoth. 289 (1908).

756. *Clarkia williamsonii* (Dur. & Hilg.) Lewis & Lewis in Madroño 12: 34 (1953) & in Univ. Calif. Publ. Bot. 20: 284 (1955).

Oenothera auricula Lévl. var. *tenella* (Cav.) Lévl. subvar. *williamsoni* (Dur. & Hilg.) Lévl., Monog. Onoth. 271 (1908).

757. *Epilobium adenocaulon* Hausskn. in Öst. Bot. Zeit. 29: 119 (1879); Munz in N. Am. Flora 5: 219 (1965).

E. alaskae Lévl. in Fedde, Rep. Sp. Nov. 5: 9 (1908) & Icon. Epilob. t. 185 (1911).

U.S.A. Alaska, Kadiak Island, 20 vii 1899, Trelease & Saunders 4501 (typus *E. alaskae*, MO — n.v.).

758. *Epilobium adenocaulon* Hausskn. var. *parishii* (Trel.) Munz in Aliso 4: 95 (1958), 489 (1960) & in N. Am. Flora 5: 219 (1965).

E. parishii Trel. in Zoe 1: 210 (1890).

E. palmeri Lévl. in Fedde, Rep. Sp. Nov. 5: 98 (1908) & Icon. Epilob. t. 188, 189 (1911) — non Rydb. (1904).

U.S.A. California, San Diego Co., Cuyamaca Mts., 27 vi 1875, *Palmer* 5368 (typus *E. palmeri* — n.v.).

759. *Epilobium amurense* Hausskn. in Öst. Bot. Zeit. 29: 55 (1879); Hara, Enum. Sperm. Jap. 3: 263 (1954); Ohwi, Fl. Jap. (Engl. ed.) 657 (1965).

E. alpinum Lévl. (non. L.) subsp. *villarsii* Lévl. in Bull. Acad. Géog. Bot. 9: 211 (1900) p.p.

E. gansuense Lévl. in Bull. Herb. Boiss. ser. 2, 7: 590 (1907), in Bull. Soc. Bot. Fr. 54: 523 (1907) & Icon. Epilob. t. 114 (1910); Nakai in Bot. Mag. Tokyo 22: 84 (1908).

E. miyabei Lévl. in Fedde, Rep. Sp. Nov. 5: 8 (1908) & Icon. Epilob. t. 132 (1910); Hara in Bot. Mag. Tokyo 50: 307 (1936).

JAPAN. Sine loc., *Faurie* s.n. (typus *E. gansuense* — n.v.); Sapporo, Hokkaido, 9 vii 1891, *K. Miyabe* s.n. (typus *E. miyabei*, MO — n.v.).

Léveillé cites 3 *Faurie* numbers under subsp. *villarsii* but Hara did not say which ones were *E. amurense*. The other part of subsp. *villarsii* is equal to *E. foucaudianum*.

760. *Epilobium anagallidifolium* Lam., Encyc. 2: 376 (1788); Munz in N. Am. Flora 5: 223 (1965).

E. athelespermum Lévl. in Le Monde des Pl. 6: 22 (1896) p.p.

E. athelespermum appears to be an illegitimate substitute name for *E. anagallidifolium* and *E. alsinifolium*.

761. *Epilobium angustifolium* L., Sp. Pl. 347 (1753).

E. neriifolium Lévl. in Le Monde des Pl. 6: 125 (1897) & in Bull. Acad. Géog. Bot. 9: 210 (1900).

E. neriifolium was an illegitimate substitute name for *E. angustifolium* and *E. spicatum*.

762. *Epilobium barbeyanum* Lévl. in Bull. Herb. Boiss. ser. 2, 7: 589 (1907), in Fedde, Rep. Sp. Nov. 9: 19 (1910) & Icon. Epilob. t. 197 (1911); Sam. in Svensk Bot. Tidskr. 17: 265 (1923).

CHILE. Cordillera de Coquimbo, 2500 m, 29 v 1883, *Philippi* 8 (typus — n.v.).

763. *Epilobium blinii* Lévl. in Fedde, Rep. Sp. Nov. 7: 338 (1909) & Icon. Epilob. t. 80 (1910) & Cat. Pl. Yunnan 185, f. 43 (1916).

CHINA. Yunnan, marais, vi 1906, *E. E. Maire* 393 (typus — n.v.).

764. *Epilobium brachycarpum* Presl., Rel. Haenk. 2: 30 (1831); Munz in N. Am. Flora 5: 218 (1965) & in Aliso 4: 489 (1960).

E. mexicanum [Moc. & Sessé ex] DC. var. *paulsenii* Lévl. in Bull. Acad. Géog. Bot. 22: 183 (1912) nom. nud.

MEXICO. Puebla, Barrancas, près l'Hacienda Alamos, route de Vera Cruz, 2170 m, 16 ix 1907, *Arsène* 1087 (typus var. *paulsenii* — n.v.).

765. *Epilobium brasiliense* Hausskn. in Öst. Bot. Zeit. 29: 119 (1879); Sam. in Svensk Bot. Tidskr. 17: 247 (1923).

E. arechavaletae Lévl. in Bull. Acad. Géog. Bot. 21: 149 (1911); Sam. in Svensk Bot. Tidskr. 17: 292 (1923).

URUGUAY. Sine loc. iv-v 1911, *J. Arechavaleta* (typus *E. arechavaletae* — n.v.).

According to Léveillé, *E. arechavaletae* is close to *E. brasiliense* but differs in the villosity of all its parts and by the presence of well-marked lines on the stem. Samuelsson stated that perhaps *E. arechavaletae* was not different from *E. brasiliense*.

766. *Epilobium brevifolium* D. Don subsp. *trichoneurum* (Hausskn.) Raven in Bull. Brit. Mus. (Nat. Hist.) Bot. 2: 362 (1962) & in Blumea 15: 271 (1967).

E. trichoneurum Hausskn. in Öst. Bot. Zeit. 29: 54 (1879).

E. esquirolii Lévl. in Bull. Herb. Boiss. ser. 2, 7: 590 (1907) & Icon. Epilob. t. 146 (1910) & Fl. Kouy-Tchéou 301 (1915).

E. cordouei Lévl. in Fedde, Rep. Sp. Nov. 6: 110 (1908) & Icon. Epilob. t. 87 (1910), Fl. Kouy-Tchéou 301 (1915) & Cat. Pl. Yunnan 185, f. 44 (1916).

CHINA. Kweichow, *Esquirol* 607 (typus *E. esquirolii* — n.v.); Kweichow, Ma-jo, rare, 5 ix 1907, *Cavalerie* 3151 (typus *E. cordouei* — n.v.).

767. *Epilobium cavaleriei* Lévl. in Bull. Herb. Boiss. ser. 2, 7: 590 (1907) & Icon. Epilob. t. 83 (1910).

CHINA. Kweichow, Pin-fa, *Cavalerie* 352, *Esquirol* 638 (syntypes — n.v.).

There is a sheet of *Esquirol* 638 at Kew.

768. *Epilobium cephalostigma* Hausskn. in Öst. Bot. Zeit. 29: 57 (1879); Hara, Enum. Sperm. Jap. 3: 264 (1954); Ohwi, Fl. Jap. (Engl. ed.) 657 (1965).

E. yabei Lévl. in Bull. Soc. Agric. Sci. Arts. Sarthe 40: 72 (1905) & in Fedde, Rep. Sp. Nov. 2: 173 (1906).

E. coreanum Lévl. in Bull. Herb. Boiss. ser. 2, 7: 590 (1907) & Icon. Epilob. t. 59 (1910); Nakai in Journ. Coll. Sci. Imp. Univ. Tokyo 26: Art. 1, 245 (1909).

JAPAN. Yezo, Junsainuma, viii 1903, *Faurie* 5396; Itaya, ix 1903, *Faurie* 5395 (syntypes *E. yabei* n.v.).

JAPAN & KOREA. Sine loc., *Faurie* s.n. (typus *E. coreanum* — n.v.).

769. *Epilobium cinereum* A. Rich., Essai Fl. N. Z. 330 (1832); Allan, Fl. N. Zeal. 1: 277 (1961); Raven in Blumea 15: 273 (1967).

E. junceum var. *corymbosum* Lévl. in Le Monde des Pl. 3: 275 (1894).

E. junceum var. *caninum* Lévl., l.c. & 313 (1894).

E. muelleri Lévl. in Fedde, Rep. Sp. Nov. 5: 100 (1908) & Icon. Epilob. t. 21 (1910).

AUSTRALIA. Victoria, Gippsland, *Howit* s.n.; Queensland, Red Jacket Creek, Thomson River, *Gargurevito* s.n. (syntypes var. *corymbosum* — n.v.); Macleay River, *Beckler* s.n. (typus *E. muelleri* — n.v.).

Léveillé in "Les Onotheracées Australiennes" did not cite a specimen under var. *caninum* but on page 313 in "Les Onotheracées Tasmaniennes" he indicated that the variety had also been collected in Tasmania, South Esk, by Oakden.

770. *Epilobium clavatum* Trel. var. *glareosum* (G. N. Jones) Munz in N. Am. Flora 5: 223 (1965).

E. glareosum G. N. Jones in Univ. Wash. Publ. Biol. 7: 119, 175 (1939).
? *E. smithii* Lévl. in Fedde, Rep. Sp. Nov. 5: 8 (1908) & Icon. Epilob. t. 219 (1911).

U.S.A. Washington, Mt. Rainier, 5000 ft., viii 1890, *E. C. Smith* (typus *E. smithii*, MO — n.v.).

771. *Epilobium cylindricum* D. Don, Prodr. Fl. Nepal 222 (1825); Raven in Bull. Brit. Mus. (Nat. Hist.) Bot. 2: 355 (1962).

E. beauverdianum Lévl. in Fedde, Rep. Sp. Nov. 8: 138 (1910) & Icon. Epilob. t. 82 (1910).

E. christii Lévl. in Fedde, Rep. Sp. Nov. 9: 19 (1910) & Icon. Epilob. t. 72 (1910).

CHINA. Szechuan, Ta-Tsien Lou, principauté de Kiala, 1892, *Soulié* 449 (typus *E. beauverdianum*, G — n.v.).

The type of *E. christii* was stated by Léveillé to be in Herb. Boissier under *E. cylindricum*, but it was not found by Raven at Geneva.

772. *Epilobium dielsii* Lévl. in Fedde, Rep. Sp. Nov. 3: 20 (1906) & Icon. Epilob. t. 116 (1910); Hara, Enum. Sperm. Jap. 3: 265 (1954); Ohwi, Fl. Jap. (Engl. ed.) 658 (1965).

JAPAN. Norikusa, 2500 m, in petrosis, rara, 28 viii 1905, *Faurie* 6672 (typus *E. dielsii* — n.v.).

773. *Epilobium fauriei* Lévl., in Le Monde des Pl. 5: 93 (1896), in Bull. Acad. Géog. Bot. 9: 211 (1900) & Icon. Epilob. t. 70, 71 (1910); Hara in Bot. Mag. Tokyo 50: 307 (1936) & Enum. Sperm. Jap. 3: 266 (1954); Ohwi, Fl. Jap. (Engl. ed.) 657 (1965).

JAPAN. Sommet du Ganju, 28 viii 1894, *Faurie* 13652 p.p. (typus — n.v.).

774. *Epilobium foucaudianum* Lévl. in Bull. Acad. Géog. Bot. 9: 211 (1900) & Icon. Epilob. t. 126 (1910); Ohwi, Fl. Jap. (Engl. ed.) 658 (1965).

E. hornemannii Reichb. var. *foucaudianum* (Lévl.) Hara in Journ. Jap. Bot. 18: 247 (1942), in Journ. Fac. Sci. Univ. Tokyo (Bot.) 6: 88 (1952) & Enum. Sperm. Jap. 3: 267 (1954).

E. lucens Lévl. in Bull. Herb. Boiss. ser. 2, 7: 590 (1907) & Icon. Epilob. t. 124 (1910).

E. alpinum Lévl. (non L.) subsp. *villarsii* Lévl. in Bull. Acad. Géog. Bot. 9: 211 (1900) p.p.

JAPAN. Sommet du Guwassan, 28 ix 1897, *Faurie* 12; Iwagisan, 18 viii 1898, *Faurie* 1309 (syntypes *E. foucaudianum* — n.v.); sine loc., *Faurie* s.n. (typus *E. lucens* — n.v.).

775. *Epilobium glaberrimum* Barbey var. *fastigiatum* (Nutt.) Trel. in Rep. Miss. Bot. Gard. 2: 105 (1891); Munz in N. Am. Flora 5: 222 (1965).

E. affine Bong. var. *fastigiatum* [Nutt. ex] Torr. & Gr., Fl. N. Am. 1: 489 (1840).

x *E. atrichum* Lévl. (*E. glaberrimum* Barb. x *E. hornemannii* Reichb.) in Fedde, Rep. Sp. Nov. 7: 99 (1909).

U.S.A. Wallowa vitris, 2000 m, 29 vii 1908 (typus x *E. atrichum* — n.v.).

776. *Epilobium glandulosum* Lehm. var. *asiaticum* Hara in Journ. Jap. Bot. 18: 241 (1942) & Enum. Spermat. Jap. 3: 266 (1954); Ohwi, Fl. Jap. (Engl. ed.) 658 (1965).

E. punctatum Lévl. in Bull. Acad. Géog. Bot. 11: 316 (1902) & Icon. Epilob. t. 145 (1910).

JAPAN. Aomori, *Kinashi* 5, 7 (syntypes *E. punctatum* — n.v.).

777. *Epilobium hirsutum* L., Sp. Pl. 1: 347 (1753) pro parte excl. var.; Raven in Bothalia 9: 312 (1967); Rosette & A. Fernandes in Consp. Fl. Angol. 4: 200 (1970).

E. hirsutum L. var. *africanum* Lévl. in Bull. Herb. Boiss. ser. 2, 7: 589 (1907).

S. AFRICA. Sine loc., 1894, *Wilms* 464 (typus var. *africanum*, G — n.v.).

Léveillé stated that the type of var. *africanum* was in Herb. Boissier but did not cite any collection. The type was cited by Brenan in Fl. Trop. E. Afr. Onagraceae: 2 (1953).

778. *Epilobium hornemannii* Reichb., Ic. Crit. 2: 73, f. 313 (1824); Munz in N. Amer. Fl. 5: 224 (1965).

? *E. x reedii* Lévl. (*E. canadense* Lévl. x *E. hornemannii* Reichb.) in Fedde, Rep. Sp. Nov. 9: 79 (1910).

See Munz's note regarding *E. x reedii*.

779. *E. komarovianum* Lévl. in Fedde, Rep. Sp. Nov. 5: 98 (1908) & Icon. Epilob. t. 1 (1910); Allan, Fl. N. Zeal. 1: 260 (1961) pro syn. sub *E. nerteroides* A. Cunn.

NEW ZEALAND. South Island, Preservation Inlet, *T. Kirk* s.n. (typus — n.v.).

780. *Epilobium lactiflorum* Hausskn. in Öst. Bot. Zeit. 29: 89 (1879); Munz in N. Am. Flora 5: 224 (1965).

E. canadense Lévl. in Fedde, Rep. Sp. Nov. 5: 98 (1908) & Icon. Epilob. t. 220 (1911).

CANADA. Montagnes rocheuses, Lake O'Hara, Kicking Horse Lake, Roger's Pass summit of Selkirk Mts., 29 vii 1890, *Macoun* 65356 (typus *E. canadense* — n.v.).

781. *Epilobium laxum* Royle, Ill. Bot. Him. 211, t. 43, f. 2. (1835); Raven in Bull. Brit. Mus. (Nat. Hist.) Bot. 2: 369 (1962).

E. sadae Lévl. in Bull. Herb Boiss. ser. 2, 7: 588 (1907) & Icon. Epilob. t. 85 (1910).

INDIA. Uttar Pradesh, Tehri Garhwal, Rudughera, 4200-4800 m, 20 vii 1883, Duthie 1046 (holo. *E. sadae* G, iso. BM — n.v.).

782. *Epilobium leptocarpum* Hausskn. var. *macounii* Trel. in Rep. Miss. Bot. Gard. 2: 103 (1891); Munz in N. Am. Flora 5: 213 (1965).

E. paddoense Lévl. in Fedde, Rep. Sp. Nov. 5: 8 (1908) & Icon. Epilob. t. 206 (1911).

U.S.A. Washington, Mt. Paddo, 6 viii 1885, Suksdorf s.n. (typus *E. paddoense* MO — n.v.).

783. *Epilobium meridense* Hausskn. var. *helodes* (Lévl.) Sam in Svensk Bot. Tidskr. 7: 258 (1923).

E. helodes Lévl. in Bull. Herb. Boiss. ser. 2, 7: 589 (1907) & Icon. Epilob. 178 (1911).

COLOMBIA. Panama de Ruiz, forêts supérieures des montagnes, 11 ix 1883, Lehmann 3158 (typus *E. helodes*, G — n.v.).

784. *Epilobium mexicanum* [Moc. & Sessé ex] DC., Prodr. 3: 41 (1828); Munz in N. Am. Flora 5: 221 (1965) & in Aliso 4: 488 (1960).

E. ostenfeldii Lévl. in Fedde, Rep. Sp. Nov. 9: 323 (1911) & Icon. Epilob. t. 224 (1911).

MEXICO. Sine loc., Liebman 92 (typus *E. ostenfeldii*, C — n.v.).

785. *Epilobium obscurum* Schreb., Spic. Fl. Lips. 147, 155 (1771); Raven in Bothalia 9: 321 (1967).

E. miguelense Lévl. in Le Monde des Pl. 3: 91, t. 3 (1894).

E. tetragonum L. subsp. *gilloti* Lévl. in Le Monde des Pl. 6: 21 (1896) & 7: 42 (1897) & Icon. Epilob. t. 253 (1911).

AZORES. Ilh. de S. Miguel, Candelaria, viii 1891, Bruno F. Carreiro s.n. (typus *E. miguelense* — n.v.).

Léveillé's subspecific combination was a substitute name for *E. obscurum* and *E. virgatum* Lam.

786. *Epilobium pallidiflorum* [Sol. ex] A. Cunn. in Ann. Nat. Hist. 3: 34 (1839); Lévl., Icon. Epilob. t. 20 (1910); Allan, Fl. N. Zeal. 1: 276 (1961).

E. muellerianum Lévl. in Le Monde des Pl. 3: 275, 314 (1894) & 5: pl. p. 107, 108 (1896).

TASMANIA. Circular Head, S. Emmett s.n. (typus *E. muellerianum* — n.v.).

The plates of *E. pallidiflorum* and *E. muellerianum* depict the same plant.

787. *Epilobium parviflorum* Schreb., Spicil. Fl. Lips. 146 (1771).

E. parviflorum Schreb. var. *menezesi* Lévl. in Le Monde des Pl. 6: 7 (1896).

MADEIRA. Rocher humide à Levada de S. Roque près Funchal, 300 m, 20 vi 1896, C. A. Menezes s.n. (typus var. *menezesi* — n.v.).

788. *Epilobium prainii* Lévl. in Fedde, Rep. Sp. Nov. 9: 19 (1910) & Icon. Epilob. t. 118 (1910); Raven in Bull. Brit. Mus. (Nat. Hist.) Bot. 2: 382 (1962).

"Typus in Herb. Boissier, Himalaya".

Raven remarked that "it has not been possible to find authentic material of this species in the herbarium at Geneva" and that "it is quite impossible to identify the species from the short description and rather poor illustration".

789. *Epilobium pyrricholophum* Franch. & Sav., Enum. Pl. Jap. 1: 168 (1873) & 2: 370 (1878); Hara, Enum. Sperm. Jap. 3: 269 (1954); Ohwi, Fl. Jap. (Engl. ed.) 658 (1965).

E. quadrangulum Lévl. in Bull. Soc. Agric. Sci. Arts Sarthe 40: 72 (1905), in Fedde, Rep. Sp. Nov. 2: 173 (1906) & Icon. Epilob. t. 104 (1910).

E. chrysocoma Lévl. in Bull. Herb. Boiss. ser. 2, 7: 589 (1907) & Icon. Epilob. t. 98 (1910).

E. pyrricholophum Franch. & Sav. var. *anoleucolophum* Lévl. in Fedde, Rep. Sp. Nov. 6: 330 (1909).

E. arcuatum Lévl. in Bull. Herb. Boiss. ser. 2, 7: 589 (1907) & Icon. Epilob. t. 141 (1910); Nakai in Journ. Coll. Sci. Imp. Univ. Tokyo 26: Art. 1, 245 (1909) pro syn. sub. *E. rouyanum* Lévl.

E. nakaianum Lévl., Icon. Epilob. t. 140 (1910) & 316 (1911).

JAPAN. Aomori, viii ix 1902, *Faurie* 5098, 5100, 5101, 5102 (syntypes *E. quadrangulum* — n.v.); sine loc., *Faurie* s.n. (typus *E. chrysocoma* — n.v.); Prov. Musashi, Mt. Takao, *Funabashi* s.n. (typus var. *anoleucolophum* — n.v.); JAPAN, KOREA. *Faurie* s.n. (typus *E. arcuatum* — n.v.).

No specimen was cited after the description of *E. nakaianum*.

790. *Epilobium pyrricholophum* Franch. & Sav. var. *curvatopilosum* Hara in Journ. Jap. Bot. 18: 237 (1942) & Enum. Sperm. Jap. 3: 270 (1954); Ohwi, Fl. Jap. (Engl. ed.) 658 (1965).

E. rouyanum Lévl. in Bull. Acad. Géog. Bot. 9: 210 (1900) & Icon. Epilob. t. 142 (1910); Nakai in Journ. Coll. Sci. Imp. Univ. Tokyo, 26: Art. 1, 245 (1909) excl. syn. *E. arcuatum* Lévl.

E. hakkodense Lévl. in Bull. Acad. Géog. Bot. 10: 34 (1901) & Icon. Epilob. t. 101 (1910).

E. makinoense Lévl. in Bull. Soc. Agric. Sci. Arts Sarthe 40: 73 (1905), in Fedde, Rep. Sp. Nov. 2: 173 (1906) & Icon. Epilob. t. 115 (1910).

E. prostratum Lévl. in Bull. Soc. Bot. Fr. 54: 522 (1907) nom. nud. & Icon. Epilob. t. 105 (1910) & 314 (1911).

JAPAN. Au pied du Bandai, 7 ix 1898, *Faurie* 1317; Wakamatsu, 28 viii 1898, *Faurie* 1312 (syntypes *E. rouyanum* — n.v.); Hakkoda, viii 1899, *M. Koriba Kuwan* sub *Faurie* 3731 (typus *E. hakkodense* — n.v.); Yezo, lieux humides des forêts, ix 1904, *Faurie* 6314 (typus *E. makinoense* — n.v.).

No type was cited under the description of *E. prostratum* in 1911. In 1907, Léveillé cited *Faurie* 4896 and 6663.

791. *Epilobium salignum* Hausskn in Öst. Bot. Zeit. 29: 90 (1879) & Mon. Gatt. 236, t. 12, f. 62 (1884); H. Perr. in Fl. Madagasc. (Fam. 154e) 4 (1950); Raven in Bothalia 9: 331 (1967).

E. madagascariense Lév. in Fedde, Rep. Sp. Nov. 4: 225 (Aug. 1907) & Icon. Epilob. t. 56 (1910).

E. schinzii Lév. in Fedde, Rep. Sp. Nov. 4: 225 (1907), in Bull. Acad. Géog. Bot. 17: 294, pl. p. 295 (1907) & Icon. Epilob. t. 53 (1910).

E. salignum Hausskn. race *neriophyllum* (Hausskn.) Lév. in Bull. Acad. Géog. Bot. 17: 298, pl. p. 299 (1907); race *madagascariense* (Lév.) Lév. in Bull. Acad. Géog. Bot. 17: 300, pl. p. 301 (Nov. 1907).

E. perrieri Lév. in Bull. Acad. Géog. Bot. 27: 3 (1917); H. Perr. in Fl. Madagasc. (Fam. 154e) 4 (1950).

MADAGASCAR. Ranobé, près Sirabé, 13 iv 1895, *Forsyth-Major* (holo. *E. madagascariense*, G — n.v.); environ d'Antsirabe, 1500 m, endroits humides, *Perrier* 6627 (E); Ankaratra, 2000 m, marais, vi 1914, *Perrier* 6630 (lectotype *E. perrieri*, P. — n.v.).

AFRICA. Natal, in Wood Woodsberg, 2-3000 m, 23 iv 1894, *J. Medley Wood* 5282 s.n. (typus *E. schinzii* — n.v.).

792. *Epilobium sinense* Lév. in Bull. Herb. Boiss. ser. 2, 7: 590 (1907), in Icon. Epilob. t. 74 (1910) & Fl. Kouy-Tchéou, 301 (1915).

CHINA. Kweichow, Pin-fa, *Cavalerie* 1784 (syntype — n.v.); Yang-Kia-Tchong, *Cavalerie* 2438 (syntype, E); Hoa-Ouan-Rao, *Esquirol* 653 (syntype — n.v.); Cnony-Yeng-Liéou, *Esquirol* 620 (syntype — n.v.).

793. *Epilobium stereophyllum* Fres. in Mus. Senckenberg 2: 151 (1837); Raven in Bothalia 9: 328 (1967).

E. kilimandscharensis Lév. in Bull. Herb. Boiss. ser. 2, 7: 589 (1907), in Bull. Acad. Géog. Bot. 17: 286-287 (1907) & Icon. Epilob. t. 49 (1910).

AFRICA. Tanganyika, Kilimanjaro, Himoschemkt, 2700 m, ii 1894, *Volkens*, s.n. *E. kilimandscharensis*, holo. G; iso., BR, E, K).

794. *Epilobium tetragonum* L. subsp. *tournefortii* (Michx.) Lév. in Le Monde des Pl. 6: 22 (1896); Raven in Bothalia 9: 320 (1967) & in Fl. Europ. 2: 310 (1968).

Epilobium tonkinense Lév. = *Stylidium tenellum* Swartz (Stylidiaceae).

795. *Epilobium treleasianum* Lév. in Fedde, Rep. Sp. Nov. 5: 8 (1908) & Icon. Epilob. t. 149 (1911); Munz in N. Am. Flora 5: 209 (1965).

CANADA. Selkirk Mts., Roger's Pass, 8 xii 1903, *E. M. Farr* s.n. (typus MO — n.v.).

796. *Epilobium wallichianum* Hausskn. subsp. *wallichianum* Hausskn. in Öst Bot. Zeit. 29: 54 (1879); Raven in Bull. Brit. Mus. (Nat. Hist.) Bot. 2: 365 (1962) & in Blumea 15: 272 (1967).

E. duclouxii Lév. in Fedde, Rep. Sp. Nov. 6: 110 (1908), Icon. Epilob. t. 144 (1910) & Cat. Pl. Yunnan, 193, f. 45 (1916).

CHINA. Yunnan, San Chen près Tchen-Hiong, 19 viii 1905, *Marc Mey* 500 (typus *E. duclouxii* — n.v.).

797. *Epilobium wallichianum* Hausskn. subsp. *souliei* (Lévl.) Raven in Bull. Brit. Mus. (Nat. Hist.) Bot. 2: 366 (1962).

E. souliei Lévl. in Bull. Herb. Boiss. ser. 2, 7: 588 (1907), Icon. Epilob. t. 121 (1910) & Fl. Kouy-Tchéou 310 (1915).

E. mairei Lévl. in Fedde, Rep. Sp. Nov. 12: 283 (1913) & Cat. Pl. Yunnan 193, f. 49 (1916).

CHINA. Szechuan, Tongolo (Principauté de Kiala, 1893, *Soulié* 350 (typus *E. souliei*, G — n.v.); Yunnan, lagunes des plateaux de Te-Hai, 3200 m, vii 1912, *E. E. Maire* s.n. (typus *E. mairei* — n.v.).

798. *Epilobium watsonii* Barbey var. *franciscanum* (Barbey) Jepson, Man. Fl. Pl. Calif. 670 (1925); Munz in N. Am. Flora 5: 221 (1965).

E. congdoni Lévl. in Fedde, Rep. Sp. Nov. 5: 98 (1908) & Icon. Epilob. t. 174 (1911).

U.S.A. California, Marin Co., Sanceliot, 12 viii 1883, *Congdon* s.n. (typus *E. congdoni* — n.v.).

UNPLACED EPILOBIUM

E. alpinum L. sens. lat. var. *gavei* Lévl. in Fedde, Rep. Sp. Nov. 5: 194 (1908).

No locality or specimens cited.

E. boissieri Lévl., Icon. Epilob. t. 1 (1910) nomen — non Hausskn.

E. canadense Lévl. var. *albescens* Lévl. in Fedde, Rep. Sp. Nov. 5: 195 (1908).

CANADA. Burgers Pass, Yoho Valley, 28 viii 1904, *Macoun* 65350 (typus — n.v.).

E. imbricatum Lévl., Icon. Epilob. t. 122, 123 (1910) & 315 (1911).

AFGHANISTAN. No specimens cited.

x *E. méyi* Lévl. (*E. hirsutum* x *E. duclouxii*) in Fedde, Rep. Sp. Nov. 6: 110 (1908).

No specimens cited.

E. montanum L. var. *thellungianum* Lévl. in Fedde, Rep. Sp. Nov. 5: 194 (1908).

No specimens cited.

NORTH AMERICAN HYBRIDS

x *E. herveyi* Lévl. in Fedde, Rep. Sp. Nov. 9: 79 (1910).

x *E. lloydii* Lévl. in Fedde, Rep. Sp. Nov. 9: 79 (1910).

x *E. sargentii* Lévl. in Fedde, Rep. Sp. Nov. 9: 79 (1910).

x *E. brittonii* Lévl. in Fedde, Rep. Sp. Nov. 9: 79 (1910).

x *E. lemayeri* Lévl. in Fedde, Rep. Sp. Nov. 9: 79 (1910).

No specimens were cited for the above.

799. *Fuchsia paniculata* Lindl. in Gard. Chron. 301 (1856).
F. liebmanni Lévl. in Bull. Acad. Géog. Bot. 22: 24 (1912); Munz in Proc. Calif. Acad. Sci. 25: 85 (1943) pro syn. sub *F. arborescens* Sims.
 COSTA RICA. Volcán Irazu, 3000 m, *Liebmann* s.n. (typus *F. liebmanni*, C — n.v., photo. F, POM).
800. *Gaura mutabilis* Cav., Icon. 3: 30, pl. 258 (1795); Munz in Bull. Torr. Bot. Club 65: 107 (1938).
Oenothera heribaudi Lévl. in Fedde, Rep. Sp. Nov. 8: 280 (1910) & Monog. Onoth. 449 (1913).
 MEXICO. Rancho Posadas, près Puebla, 2194 m, 17 vii 1909, *Frère Nicolas* s.n. (typus *O. heribaudi*, G, US, photo. P).
 Munz gave the locality for the type specimen of *O. heribaudi* as Bord del l'Alsesécon, Nicolas in 1909, but simply considered the wrong specimen as Léveillé's type.
801. *Gayophytum diffusum* Torr. & Gray, Fl. N. Amer. 1: 513 (1840); Munz in Amer. Journ. Bot. 19: 773 (1932); Lewis & Szweykowski in Brittonia 16: 383 (1964).
Oenothera gayophytum Lévl. race *treleasiana* Lévl. f. *diffusa* (Torr. & Gray) Lévl., Monog. Onoth. 169 (1905).
802. *Gayophytum diffusum* Torr. & Gray subsp. *parviflorum* Lewis & Szweykowski in Brittonia 16: 386 (1964).
Oenothera gayophytum Lévl. race *treleasiana* Lévl. f. *lasiosperma* (Greene) Lévl., Monog. Onoth. 169 (1905).
803. *Gayophytum eriospermum* Coville in Contr. U.S. Nat. Herb. 4: 103 (1893); Munz in Amer. Journ. Bot. 19: 775 (1932); Lewis & Szweykowski in Brittonia 16: 380 (1964).
Oenothera gayophytum Lévl. race *treleasiana* Lévl. f. *eriosperma* (Coville) Lévl., Monog. Onoth. 169 (1905).
804. *Gayophytum humile* Juss. in Ann. Sci. Nat. ser. 1, 25: 18, t. 4 (1832); Munz in Amer. Journ. Bot. 19: 777 (1932); Lewis & Szweykowski in Brittonia 16: 360 (1964).
Oenothera gayophytum Lévl. race *philippiana* Lévl. f. *densifolia* (Phil.) Lévl., Monog. Onoth. 169 (1905).
805. *Gayophytum micranthum* (Presl.) Hook. & Arn. in Hook., Bot. Misc. 3: 311 (1833); Munz in Amer. Journ. Bot. 19: 769 (1932); Lewis & Szweykowski in Brittonia 16: 389 (1964).
Oenothera gracilis (Phil.) Lévl., Monog. Onoth. 167 (1905).
O. gayophytum Lévl. race *philippiana* Lévl. f. *robusta* (Phil.) Lévl. Monog. Onoth. 169 (1905).
806. *Gayophytum racemosum* Torr. & Gray, Fl. N. Am. 1: 514 (1840); Lewis & Szweykowski in Brittonia 16: 364 (1964).
Oenothera gayophytum Lévl. race *philippiana* Lévl. f. *caesia* (Torr. & Gray) Lévl., Monog. Onoth. 169 (1905).

807. Gayophytum ramosissimum Torr. & Gray, Fl. N. Amer. 1: 513 (1840); Munz in Amer. Journ. Bot. 19: 770 (1932); Lewis & Szweykowski in Brittonia 16: 371 (1964).

Oenothera gayophytum Lévl. race *treleasiana* Lévl. f. *ramosissima* (Torr. & Gray) Lévl., Monog. Onoth. 169 (1905) p.p.

Lopezia glazioui Lévl. = *Diplusodon virgatus* Pohl] (Lythraceae).

808. Ludwigia adscendens (L.) Hara in Journ. Jap. Bot. 28: 290 (1953); Raven in Reinwardtia 6: 387 (1963).

Jussiaea repens L. var. *bodinieri* Lévl. in Le Monde des Pl. 5: 59 (1895).

CHINA. Hong Kong, dans une mare à Kennedytown, ii vii 1894, & 20 ix 1893, E. Bodinier s.n. (typus var. *bodinieri* — n.v.).

809. Ludwigia anastomosans (DC.) Hara in Journ. Jap. Bot. 28: 291 (1953); Raven in Reinwardtia 6: 331 (1963).

Jussiaea octofila DC. var. *anastomosans* (DC.) Lévl. in Bull. Soc. Bot. Fr. 54: 424 (1907).

810. Ludwigia bonariensis (Mich.) Hara in Journ. Jap. Bot. 28: 291 (1953); Raven in Reinwardtia 6: 333 (1963).

Jussiaea suffruticosa L. var. *bonariensis* (Mich.) Lévl. in Bull. Soc. Bot. Fr. 54: 427 (1907).

811. Ludwigia brachyphylla (Mich.) Hara in Journ. Jap. Bot. 28: 291 (1953); Raven in Reinwardtia 6: 331 (1963).

Jussiaea erecta L. f. *brachyphylla* (Mich.) Lévl. in Bull. Soc. Bot. Fr. 54: 422 (1907).

812. Ludwigia caparosa (Camb.) Hara in Journ. Jap. Bot. 28: 292 (1953); Raven in Reinwardtia 6: 331 (1963).

Jussiaea peruviana L. var. *caparosa* (Camb.) Lévl. in Bertoni, Descr. Fis. Econ. Paraguay 14 (1910).

813. Ludwigia decurrens Walt., Fl. Carolin. 89 (1788); Raven in Reinwardtia 6: 347 (1963).

Jussiaea bertonii Lévl. in Bertoni, Descr. Fis. Econ. Paraguay, 2 (1910).

PARAGUAY. "Puerto Bertoni", in paludibus, 1.5-2 m alta, Bertoni No. 6, 3660 (typus *J. bertonii* — n.v.).

814. Ludwigia elegans (Camb.) Hara in Journ. Jap. Bot. 28: 292 (1953); Raven in Reinwardtia 6: 331 (1963).

Jussiaea octofila DC. var. *elegans* (Camb.) Lévl. in Bull. Soc. Bot. Fr. 54: 424 (1907).

J. peruviana L. var. *elegans* (Camb.) Lévl. in Bertoni, Descr. Fis. Econ. Parag. 13 (1910) as to name only. (See Munz in Darwiniana 4: 226, 1942).

815. *Ludwigia epilobioides* Maxim. in Mém. Acad. Imp. Sci. St. Pétersb. 9: 104 (1859); Raven in Reinwardtia 6: 383 (1963); Ohwi, Fl. Jap. (Engl. ed.) 659 (1965).

Jussiaea parmentieri Lévl. in Le Monde des Pl. 6: 51 (1897).

J. japonica Lévl. in Le Monde des Pl. 6: 51 (1897) & in Bull. Acad. Géog. Bot. 9: 212 (1900).

J. fauriei Lévl. in Le Monde des Pl. 6: 51 (1897), in Bull. Acad. Géog. Bot. 9: 212 (1900) & 11: 316 (1902).

J. philippiana Lévl. in Le Monde des Pl. 6: 51 (1897).

J. prostrata (Roxb.) Lévl. var. *fauriei* (Lévl.) Lévl. in Fedde, Rep. Sp. Nov. 8: 138 (1910) & in Bull. Acad. Géog. Bot. 22: 248 (1912).

J. prostrata (Roxb.) Lévl. var. *philippiana* (Lévl.) Lévl. in Fedde, Rep. Sp. Nov. 8: 138 (1910) & in Bull. Acad. Géog. Bot. 22: 248 (1912).

J. prostrata (Roxb.) Lévl. var. *parmentieri* (Lévl.) Lévl. in Fedde, Rep. Sp. Nov. 8: 138 (1910) & in Bull. Acad. Géog. Bot. 22: 248 (1912).

J. prostrata (Roxb.) Lévl. var. *microphylla* Lévl. in Bull. Acad. Géog. Bot. 22: 248 (1912).

JAPAN. Matsuyama, 14 xi 1893, *Faurie* 11644 (typus *J. parmentieri* — n.v.); Matsuyama, 14 xi 1893, *Faurie* 11673 (syntype *J. japonica* G — n.v.); rizières de Kochi, 19-22 xi 1893, *Faurie* 11682 (syntype *J. japonica* — n.v.); Raven selected *Faurie* 11673 as lectotype; Morioka, rizières, 30 viii 1890, *Faurie* 6228 — (typus *J. fauriei*, G. — n.v.); Shirosaki, x 1885, *Faurie* 1333 (typus *J. philippiana*, P — n.v.).

No material was cited by Léveillé under *J. prostrata* var. *microphylla* which he used as a varietal name embracing small-leaved taxa.

816. *Ludwigia lagunae* (Morong) Hara subsp. *paraguayensis* (Chodat) Lauener, comb. et stat. nov.

Jussiaea paraguayensis Chodat in Bull. Herb. Boiss. 7, App. 1: 71 (1899).

J. paraguayensis Lévl. in Bertoni, Descr. Fis. Econ. Parag. 3 (1910) — non Chodat 1899.

J. suffruticosa L. var. *paraguayensis* (Chodat) Bertoni, Descr. Fis. Econ. Parag. 17 (1910).

J. leveilleana Bertoni, Descr. Fis. Econ. Parag. 12 (1910) — nom. nov. for *J. paraguayensis* Lévl.

J. lagunae Morong var. *paraguayensis* (Chodat) Munz in Darwiniana 4: 249 (1942).

PARAGUAY. Stma. Trinidad prope Asuncion, 27 xii 1903, *Bertoni* 15 (typus *J. paraguayensis* Lévl. — n.v.).

Professor Raven agrees that a new combination is required under *Ludwigia*. This subspecies differs from the type subspecies in the denser indumentum and broader leaves.

817. *Ludwigia longifolia* (DC.) Hara in Journ. Jap. Bot. 28: 293 (1953); Raven in Reinwardtia 6: 332 (1963).

Jussiaea octofila DC. f. *longifolia* (DC.) Lévl. in Bull. Soc. Bot. Fr. 54: 425 (1907).

J. peruviana L. var. *longifolia* (DC.) Lévl. ex Bertoni, Descr. Fis. Econ. Parag. 13 (1910).

818. *Ludwigia octovalvis* (Jacq.) Raven in Kew Bull. 15: 476 (1962) & in Reinwardtia 6: 356 (1963).

Jussiaea suffruticosa L. race *salicifolia* (Kunth) Lévl. in Bull. Soc. Bot. Fr. 54: 427 (1907).

819. *Ludwigia octovalvis* (Jacq.) Raven subsp. *sessiliflora* (Mich.) Raven in Reinwardtia 6: 362 (1963).

Jussiaea suffruticosa L. var. *scabra* (Willd.) Lévl. ex Bertoni, Descr. Fis. Econ. Parag. 18 (1910).

820. *Ludwigia ovalis* Miq. in Ann. Mus. Bot. Lugd. Bat. 3: 95 (1867); Raven in Reinwardtia 6: 403 (1963).

L. palustris (L.) Ell. var. *ovalis* (Miq.) Lévl. in Bull. Acad. Géog. Bot. 9: 212 (1900).

821. *Ludwigia palustris* (L.) Ell., Sketch Bot. So. Carolina & Ga. 1: 211 (1817); Raven in Reinwardtia 6: 399 (1963).

? *L. palustris* (L.) Ell. var. *liebmanni* Lévl. in Bull. Acad. Géog. Bot. 22: 24 (1912).

MEXICO. *Liebmann* (typus var. *liebmanni* — n.v.).

822. *Ludwigia peploides* (Kunth) Raven subsp. *montevidensis* (Spreng.) Raven in Reinwardtia 6: 395 (1963).

Jussiaea repens L. var. *clarenciana* Lévl. in Le Monde des Pl. 3: 278 (1894).

AUSTRALIA. New South Wales, Clarence River, *A. Camara & Wilcox* (typus var. *clarenciana* — n.v.).

823. *Ludwigia prostrata* Roxb., Fl. Ind. 1: 441 (1820); Raven in Reinwardtia 6: 374 (1963).

Jussiaea prostrata (Roxb.) Lévl. in Fedde, Rep. Sp. Nov. 8: 138 (1910) in Bull. Acad. Géog. Bot. 22: 247 (1912) & Cat. Pl. Yunnan 193 (1916).

824. *Ludwigia uruguayensis* (Camb.) Hara in Journ. Jap. Bot. 28: 294 (1953); Raven in Reinwardtia 6: 398 (1963).

Jussiaea stuckertii Lévl. in Bull. Acad. Géog. Bot. 17: no. 210-211, iii (1907).

ARGENTINA. Prope Cordoba, in paludosis et San Vicente, 18 xii 1896, *Teod. Stuckert* 12655 (syntype *J. stuckerti*, CORD — n.v.); 20 xii 1899, *Stuckert* 1106, 22 xii 1903, *Stuckert* 8120 (syntypes *J. stuckertii* — n.v.).

Stuckert 12655 was seen by Munz.

UNPLACED LUDWIGIA

Ludwigia bertonii Lévl. in Bertoni, Descr. Fis. Econ. Parag. 3 (1910) — non *Jussiaea bertonii* Lévl. l.c. 3 (1910); Bertoni, l.c. 20 (1910).

PARAGUAY. Trinidad prope Asuncion, Sept., *Bertoni* 2634, 2755 & 3025 (syntypes — n.v.).

Jussiaea socotrens Lévl. in Fedde, Rep. Sp. Nov. 4: 226 (1907); Raven in Reinwardtia 6: 404 (1963).
SOCOTRA. ii-iii 1880, collector unknown 457 (typus — n.v.).

Raven remarks that this is "probably not Onagraceae" and that the type could not be found.

825. *Oenothera affinis* Camb. in A. St. Hil., Fl. Bras. Mer. 2: 269 (1829); Munz in Amer. Journ. Bot. 22: 660 (1935).

O. polymorpha Lévl. race *propinqua* (Spach) Lévl., Monog. Onoth. 364 (1909) p.p.; var. *berteriana* (Spach) Lévl., l.c. 364 (1909).

Included in synonymy under *O. polymorpha* Lévl. (p. 361) which is a substitute name, is *O. saligna* Lévl. nom. nud.

826. *Oenothera albicaulis* Pursh, Fl. Sept. Am. 2: 733 (1814); Munz in Amer. Journ. Bot. 22: 648 (1935) & in N. Am. Flora 5: 111 (1965).

O. albicaulis Pursh race *transiens* Lévl. var. *xanthosperma* Lévl., Monog. Onoth. 342, 344 (1909) p.p.

O. sinuata L. race *pinnatifida* (Nutt.) Lévl., Monog. Onoth. 351 (1909); var. *bicolor* Lévl., l.c. 351 (1909).

U.S.A. Five collections from Arizona, California & New Mexico were cited under var. *xanthosperma*.

827. *Oenothera brachycarpa* A. Gray, Pl. Wright. 1: 70 (1852); Munz in N. Am. Flora 5: 96 (1965).

O. brachycarpa Gray var. *wrightii* (Gray) Lévl., Monog. Onoth. 40 (1902); Munz in Amer. Journ. Bot. 17: 368 (1930).

828. *Oenothera californica* (Wats.) Wats. in Brewer & Wats., Bot. Calif. 1: 223 (1876); Munz in Amer. Journ. Bot. 18: 325 (1931) & in N. Am. Flora 5: 115 (1965).

O. albicaulis Pursh race *transiens* Lévl. var. *melanosperma* Lévl., Monog. Onoth. 342 (1909).

U.S.A. California, Bear Valley, San Bernardino Mountains and their eastern base, 6500 feet, 18 vi 1894, S. B. Parish 3147 (typus var. *melanosperma*, DS — n.v.).

829. *Oenothera coquimbensis* Gray, Fl. Chil. 2: 331 (1847); Munz in Amer. Journ. Bot. 22: 657 (1935).

O. albicaulis Pursh var. *tigrina* Lévl. subvar. *coquimbensis* (Gay) Lévl., Monog. Onoth. 345 (1909).

830. *Oenothera coronopifolia* Torr. & Gray, Fl. N. Amer. 1: 495 (1840); Munz in Amer. Journ. Bot. 22: 647 (1935) & in N. Am. Flora 5: 110 (1965).

O. sinuata L. race *coronopifolia* (Torr. & Gray) Lévl., Monog. Onoth. 352 (1909).

831. *Oenothera deltoidea* Torr. & Frém., Rep. 315 (1845); Munz in Amer. Journ. Bot. 18: 313 (1931).

O. trichocalyx Nutt. f. *mollis* Lévl., Monog. Onoth. 346 (1909); f. *refracta* Lévl., l.c. 346 (1909).

No specimens were cited under these forms.

832. *Oenothera deltoidea* Torr. & Frém. subsp. *ambigua* (Wats.) Klein in Aliso 5: 179 (1962); Munz in N. Am. Flora 5: 114 (1965).

O. deltoidea Torr. & Frém. var. *ambigua* (Wats.) Munz in Amer. Journ. Bot. 18: 315 (1931).

O. trichocalyx Nutt. f. *heterophylla* Lévl., Monog. Onoth. 346 (1909) p.p.

No specimens were cited under f. *heterophylla*.

833. *Oenothera deltoidea* Torr. & Frém. subsp. *piperi* (Munz) Klein in Aliso 5: 180 (1962); Munz in N. Am. Flora 5: 114 (1965).

O. deltoidea Torr. & Frém. var. *piperi* Munz in Amer. Journ. Bot. 18: 314 (1931).

O. trichocalyx Nutt. f. *acaulis* Lévl., Monog. Onoth. 346 (1909).

No specimens were cited under f. *acaulis*.

834. *Oenothera drummondii* Hook. in Bot. Mag. 61: t. 3361 (1834); Munz in Amer. Journ. Bot. 22: 651 (1935) & in N. Am. Flora 5: 107 (1965).

O. drummondii Hook. var. *helleriana* Lévl. in Bull. Acad. Géog. Bot. 8: (1898) pl. sine textu of Heller 1512.

O. sinuata L. race *humifusa* (Torr. & Gray) Lévl. var. *drummondii* (Hook.) Lévl., Monog. Onoth. 351 (1909); subvar. *helleriana* (Lévl.) Lévl. l.c. 351 (1909).

U.S.A. Texas, Neueces Co., Corpus Christi bay, 11-12 xii 1879, Palmer 343 — n.v.; Neueces Co., Corpus Christi, 40 feet, 23-30 iii 1894, Heller 1512 (lectotype subvar. *helleriana*, BM, E, G, GH, K, P, POM, US); California, Sierra Nevada, 1875, J. Muir 4356 — n.v.; Montevideo, 9 x 1767, lieux sablonneux Commerson s.n. — n.v.

The specimens cited above were all syntypes.

835. *Oenothera erythrosepala* Borbás in Magyar Bot. Lap. 2: 245 (1903); Munz in N. Am. Flora 5: 130 (1965).

O. communis Lévl. race *vriesiana* Lévl., Monog. Onoth. 370 (1909).

836. *Oenothera flava* (A. Nels.) Garrett, Spr. Fl. Wasatch ed. 4, 106 (1927); Munz in Amer. Journ. Bot. 17: 361 (1930) & in N. Am. Flora 5: 98 (1965).

O. taraxacifolia (Hort. ex Sweet) Lévl. & Guffr. var. *ecristata* (M. E. Jones) Lévl., Monog. Onoth. 77 (1902).

837. *Oenothera fremontii* S. Wats. in Proc. Am. Acad. 8: 587 (1873); Munz in Amer. Journ. Bot. 17: 366 (1930) & in N. Am. Flora 5: 95 (1965).

O. missouriensis Sims race *fremontii* (S. Wats.) Lévl., Monog. Onoth. 36 (1902).

838. *Oenothera fruticosa* L., Sp. Pl. 346 (1753); Munz in N. Am. Flora 5: 88 (1965).

O. fruticosa L. race *spachiana* (Torr. & Gray) Lévl. var. *glauca* (Michx.) Lévl. f. *angustifolia* Lévl., Monog. Onoth. 108 (1902); f. *diversifolia* Lévl., l.c. 108 (1902).

O. fruticosa L. var. *vera* Hook. f. *angustifolia* (Lévl.) Munz in Bull. Torr. Bot. Club 64: 293 (1937).

See Munz (l.c. p. 294) for type of f. *angustifolia*.

839. *Oenothera graminifolia* (Lévl.) Lévl., Monog. Onoth. 42, t. p. 33 (1902); Munz in Amer. Journ. Bot. 17: 369 (1930) & in N. Am. Flora 5: 96 (1965).

O. brachycarpa Gray var. *graminifolia* Lévl. in Bull. Acad. Géog. Bot. 9: (1900) pl. sine textu.

O. brachycarpa Gray var. *stenophylla* Lévl., Monog. Onoth. 42 (1902) nom. nud in syn.

MEXICO. Saltillo, Coahuila, Palmer 342 (typus var. *graminifolia* GH, MO US — n.v.).

The plate of var. *graminifolia* clearly shows the label of Palmer 342.

840. *Oenothera heterophylla* Spach in Nouv. Ann. Mus. Paris 4: 348 (1835); Munz in Amer. Journ. Bot. 653 (1935) & in N. Am. Flora 5: 108 (1965).

O. pyramidalis Lévl. in Bull. Acad. Géog. Bot. 9 (1900) pl. sine textu & Monog. Onoth. 382 (1909) nom. subs.; var. *lindheimeri* Lévl., l.c. 383 (1909); var. *heterophylla* (Spach) Lévl., l.c. 383 (1909) but not as to plants cited for var. *heterophylla*.

U.S.A. Texas, Brayos Bottom, vii 1843, *Lindheimer* s.n. (syntype var. *lindheimeri* — n.v.); sandy soil in open woods in the Buffalo bag, vii 1842, *Lindheimer* s.n. (syntype var. *lindheimeri* — n.v.); 1843, *Lindheimer* 56 (syntype var. *lindheimeri*, BM, GH, K — n.v.)

841. *Oenothera hookeri* Torr. & Gray, Fl. N. Am. 1: 493 (1840); Munz in N. Am. Flora 5: 125 (1965).

O. communis Lévl. race *biennis* (L.) Lévl. var. *hookeri* (Torr. & Gray) Lévl., Monog. Onoth. 370 (1909).

842. *Oenothera humifusa* Nutt., Gen. N. Amer. 1: 245 (1818); Munz in Amer. Journ. Bot. 22: 652 (1935) & in N. Am. Flora 5: 107 (1965).

O. sinuata L. race *humifusa* (Nutt.) Lévl., Monog. Onoth. 351 (1909)

843. *Oenothera indecora* Camb. in A. St. Hil., Fl. Bras. Mer. 2: 268 (1829); Munz in Amer. Journ. Bot. 22: 658 (1935).

O. polymorpha Lévl. race *mollissima* (L.) Lévl. var. *indecora* (Camb.) Lévl., Monog. Onoth. 365 (1909); ? var. *arechaveletae* Lévl., l.c. 365 (1909).

O. argentinae Lévl. & Thell. in Le Monde des Pl. 18: 55 (1917) nom. nud. & in Fedde, Rep. Sp. Nov. 15: 133 (1918); Thell. in Le Monde des Pl. 20: 7 (1919).

No collection was cited for var. *arechaveletae*, but it was collected by M. J. Arechaveleta. No collection was cited for *O. argentina*.

844. *Oenothera jamesii* Torr. & Gray, Fl. N. Am. 1: 493 (1840); Munz in N. Am. Flora 5: 131 (1965).

O. communis Lévl. race *biennis* (L.) Lévl. var. *jamesii* (Torr. & Gray) Lévl., Monog. Onoth. 370 (1909).

845. *Oenothera kunthiana* (Spach) Munz in Amer. Journ. Bot. 19: 759 (1932) & in N. Am. Flora 5: 82 (1965).

O. tetraptera Cav. var. *immutabilis* Lévl. f. *depauperata* Lévl., Monog. Onoth. 122 (1902); f. *roseoidea* Lévl., l.c. 122 (1902); var. *rosea* Lévl., l.c. 449 (1913) nom. nud.

MEXICO. San Luis Potosi, 8000 feet, 1878, *Parry & Palmer* 250 (syntype f. *depauperata*, BM, E, GH, K, P, US); *Parry & Palmer* 252, 254 (syntype f. *depauperata*).

Nine specimens were cited under f. *roseoidea*. Var. *rosea* was said by Léveillé to be in cultivation at Kew.

846. *Oenothera laciniata* Hill, Hort. Kew. 1724, t. 6 (1768); Munz in Amer. Journ. Bot. 22: 655 (1935) & in N. Am. Flora 5: 109 (1965).

O. sinuata L. race *coronopifolia* (Torr. & Gray) Lévl. var. *minima* (Pursh) Lévl., Monog. Onoth. 354 (1909).

847. *Oenothera laciniata* Hill. var. *nocturna* (Jacq.) Munz in Amer. Journ. Bot. 22: 656 (1935).

O. polymorpha Lévl. race *longiflora* (Jacq.) Lévl. var. *nocturna* (Jacq.) Lévl., Monog. Onoth. 364 (1909).

848. *Oenothera longiflora* L., Mant. Alt. 227 (1771); Munz in Amer. Journ. Bot. 22: 663 (1935).

O. polymorpha Lévl. race *longiflora* (L.) Lévl., Monog. Onoth. 364 (1909); var. *sellowii* (Link & Otto) Lévl., l.c. 364 (1909).

849. *Oenothera missouriensis* Sims, Bot. Mag. t. 1592 (1814); Munz in Amer. Journ. Bot. 17: 365 (1930) & in N. Am. Flora 5: 95 (1965).

O. missouriensis Sims f. *intermedia* Lévl., Monog. Onoth. 36 (1902). U.S.A. Texas, Dallas, dry banks, 25 vi 1872, *Elihu Hall* s.n. (typus f. *intermedia*, GH, POM, US — n.v.).

850. *Oenothera missouriensis* Sims var. *oklahomensis* (Norton) Munz in Amer. Journ. Bot. 17: 365 (1930) & in N. Am. Flora 5: 95 (1965).

O. missouriensis Sims race *nortoni* Lévl., Monog. Onoth. 37 (1902).

Léveillé's race *nortoni* was a substitute name for *O. oklahomensis*.

851. *Oenothera mollissima* L., Sp. Pl. 346 (1753); Munz in Amer. Journ. Bot. 22: 659 (1935).

O. polymorpha Lévl. race *mollissima* (L.) Lévl., Monog. Onoth. 365 (1909) p.p.; race *propinqua* (Spach) Lévl., l.c. 364 (1909) p.p.

852. *Oenothera multicaulis* Ruiz & Pav., Fl. Peruv. 3: 80, t. 317b (1802); Munz in Amer. Journ. Bot. 19: 757 (1932).

O. barbeyana Lévl. in Bull. Acad. Géog. Bot. 8: (1898) pl. sine textu & Monog. Onoth. 43 (1902).

BOLIVIA. Songo, xi 1890, *Bang* 914 (syntype *O. barbeyana*, BM, E, G, GH, MO, NY, US); rochers et mares près de la ville de Potosi, d'Orbigny 1497 (syntype *O. barbeyana* — n.v.).

853. *Oenothera nana* Griseb. in Abhandl. Gesells. Wiss. Goett. 19: 143 (1874); Munz in Amer. Journ. Bot. 22: 649 (1935).

O. mandoni Lévl. in Bull. Acad. Géog. Bot. 8 (1898) pl. sine textu & Monog. Onoth. 359 (1909) in syn.

O. kuntziana Lévl., Monog. Onoth. 43 (1902), 359 (1909).

BOLIVIA. Viciniis urbis La Paz, via ad Coroico, in glareosis 4000 m, iii, iv 1857, G. Mandon 631 (typus *O. mandoni*, *O. kuntziana*, BM, G, K, NY, — nv.)

854. *Oenothera neomexicana* (Small) Munz in Amer. Journ. Bot. 18: 317 (1931) & in N. Am. Flora 5: 117 (1965).

O. trichocalyx Nutt. f. *albicauloidea* Lévl., Monog. Onoth. 346 (1909).

855. *Oenothera odorata* Jacquin, Coll Suppl. 107 (1796); Munz in Amer. Journ. Bot. 22: 660 (1935).

O. polymorpha Lévl. subsp. *odorata* (Jacquin) Lévl. in Bull. Acad. Géog. Bot. 8 (1898) pl. sine textu.

O. polymorpha Lévl. race *odorata* (Jacquin) Lévl., Monog. Onoth. 363 (1909); var. *undulata* (Ait.) Lévl., l.c. 363 (1909).

O. polymorpha Lévl. race *propinqua* (Spach) Lévl. var. *ibari* (Phil.) Lévl., Monog. Onoth. 635 (1909).

856. *Oenothera pallida* Lindl. in Edwards's Bot. Reg. 14: t. 1142 (1828); Munz in Amer. Journ. Bot. 18: 319 (1931) & in N. Am. Flora 5: 118 (1965).

O. albicaulis Pursh race *transiens* Lévl. var. *pallida* (Britton) Lévl., Monog. Onoth. 342 (1909).

857. *Oenothera pallida* Lindl. subsp. *gypsophila* (Eastw.) Munz & Klein in N. Am. Flora 5: 120 (1965).

O. albicaulis Pursh race *transiens* Lévl. var. *gypsophila* (Eastw.) Lévl., Monog. Onoth. 342 (1909) p.p.

858. *Oenothera pallida* Lindl. subsp. *runcinata* (Engelm.) Munz & Klein in N. Am. Flora 5: 119 (1965).

O. albicaulis Pursh race *transiens* Lévl. var. *tigrina* Lévl., Monog. Onoth. 342, 344 (1909) p.p.

O. wislizenii Lévl., Monog. Onoth. 348 (1909).

U.S.A. Texas, sand hills of El Paso, 17 viii 1846, A. Wislizenus s.n. (typus *O. wislizenii*, GH, — n.v.).

Several specimens were cited under var *tigrina*.

859. *Oenothera parviflora* L., Syst. Nat. ed. 10: 998 (1759); Munz in N. Am. Flora 5: 122 (1965).

O. communis Lévl. race *biennis* (L.) Lévl. var. *cruciata* (Nutt.) Lévl., Monog. Onoth. 370 (1909).

O. communis Lévl. race *biennis* (L.) Lévl. var. *jamesii* (Torr. & Gray) Lévl. f. *parviflora* (L.) Lévl., Monog. Onoth. 370 (1909).

860. *Oenothera pilosella* Raf., Ann. Nat. 15 (1820); Munz in Bull. Torr. Bot. Club 64: 290, 304 (1937).

O. fruticosa L. race *spachiana* (Torr. & Gray) Lévl. var. *glauca* (Michx.) Lévl. f. *hirsuta* (Nutt. in Torr. & Gray) Lévl., Monog. Onoth. 108 (1902); ? f. *sessilicarpa* Lévl., l.c. 108 (1902); Munz in N. Am. Flora 5: 93 (1965).

U.S.A. Illinois, Beardstown, Chr. A. Geyer s.n. (syntype f. *sessilicarpa* — n.v.); Iowa City, v-vi 1833, A. S. Hitchcock s.n. (syntype f. *sessilicarpa* — n.v.).

861. *Oenothera primiveris* Gray in Smithson. Contr. Knowl. 5, 6: 58 (1853); Munz in Amer. Journ. Bot. 18: 735 (1931) & in N. Am. Flora 5: 103 (1965).

O. caespisota Nutt. race *johnsoni* (Parry) Lévl., Monog. Onoth. 70 (1902).

O. caespitosa Nutt. var. *primiveris* (Gray) Lévl., Monog. Onoth. 71 (1902).

862. *Oenothera rosea* [L'Hér. ex] Ait., Hort. Kew. ed. 1, 2: 3 (1789); Munz in Amer. Journ. Bot. 19: 762 (1932) & in N. Am. Flora 5: 83 (1965).

O. lyrata Lévl., Monog. Onoth. 111 (1902) in syn. sub. *O. rosea*.

863. *Oenothera spachiana* Torr. & Gray, Fl. N. Amer. 1: 498 (1840); Munz in Bull. Torr. Bot. Club 64: 289 (1937) & in N. Am. Flora 5: 86 (1965).

O. fruticosa L. race *spachiana* (Torr. & Gray) Lévl., Monog. Onoth. 106 (1902).

864. *Oenothera speciosa* Nutt. in Journ. Acad. Nat. Sci. Philad. 2: 119 (1821); Munz in Amer. Journ. Bot. 19: 764 (1932) & in N. Am. Flora 5: 84 (1965); Raven & Parnell in Madroño 20: 249 (1970).

O. delessertiana Steud., Nom. Bot. ed. 2, 2: 206 (1841); Munz in N. Am. Flora 5: 85 (1965).

O. speciosoides Lévl. (*O. rosea* x *speciosa*), Monog. Onoth. 113 (1902).

O. tetrapteroides Lévl. (*O. rosea* x *tetraptera*) l.c., 114 (1902).

O. speciosa Nutt. f. *subintegrifolia* Lévl., Monog. Onoth. 117 (1902).

O. speciosa Nutt. f. *variegata* Lévl., l.c. 118 (1902).

O. shimeki Lévl. & Guffr. in Lévl., Monog. Onoth. 119 (1902).

O. speciosa Nutt. var. *serrulatiformis* Lévl., Monog. Onoth. 119 (1902) nom. nud. in syn.

O. speciosa Nutt. var. *berlandieri* (Spach) Munz in Amer. Journ. Bot. 19: 765 (1932).

Cultivated in Missouri Botanical Garden, 31 x 1894 (typus *O. speciosoides*, MO—n.v.).

MEXICO. Tamaulipas. *Berlandier* 2326 (= 896) (typus *O. tetrapteroides*, BM, G, GH, K—n.v.).

U.S.A. Texas, *Trécul* 1195, 1343, 1377 (syntypes f. *variegata* — n.v.).

U.S.A. Oklahoma, Oklahoma City, vii 1892 B. *Shimek* s.n. (typus *O. shimeki* MO — n.v.)

Forma *subintegrifolia* was cultivated from seeds sent from Texas.

865. *Oenothera stricta* [Ledeb. ex] Link, Enum. Hort. Berol. 1: 377 (1821); Munz in Amer. Journ. Bot. 22: 661 (1935) & in N. Am. Flora 5: 110 (1965).

O. polymorpha Lévl. race *odorata* (Jacquin) Lévl. var. *magellanica* (Phil.) Lévl., Monog. Onoth. 363 (1909).

O. polymorpha Lévl. race *stricta* (Ledeb. ex Link) Lévl., Monog. Onoth. 363 (1909).

O. polymorpha Lévl. race *mollissima* (L.) Lévl. var. *brachysepala* (Spach) Lévl., Monog. Onoth. 365 (1909).

866. *Oenothera strigosa* (Rydb.) Mack & Bush subsp. *canovirens* (Steele) Munz in N. Am. Flora 5: 136 (1965).

? *O. communis* Lévl. race *biennis* (L.) Lévl. var. *jamesii* (Torr. & Gray) Lévl. f. *canescens* (Torr. & Gray) Lévl., Monog. Onoth. 370 (1909).

867. *Oenothera suaveolens* Pers., Syn. Pl. 1: 408 (1805). Raven in Fl. Europ. 2: 307 (1968).

O. communis Lévl. race *biennis* (L.) Lévl. var. *jamesii* (Torr. & Gray) Lévl. f. *suaveolens* (Desf.) Lévl., Monog. Onoth. 370 (1909).

868. *Oenothera tetragona* Roth subsp. *glauc*a (Michx.) Munz in N. Am. Flora 5: 91 (1965).

O. fruticosa L. race *spachiana* (Torr. & Gray) Lévl. var. *glauc*a (Michx.) Lévl., Monog. Onoth. 107 (1902).

869. *Oenothera tetraptera* Cav., Icon. 3: 40, pl. 279 (1794); Munz in Amer. Journ. Bot. 19: 761 (1932) & in N. Am. Flora 5: 83 (1965).

O. tetraptera Cav. var. *immutabilis* Lévl., Monog. Onoth. 122 (1902).

O. tetraptera Cav. f. *chenopodifolia* Lévl., Monog. Onoth. 122 (1902).

VENEZUELA. Near Tovar, 1854-55, *Fendler* 451 (typus f. *chenopodifolia*, G, GH, K — n.v.).

870. *Oenothera triloba* Nutt. in Journ. Acad. Philad. 2: 118 (1821); Munz in Amer. Journ. Bot. 17: 359 (1930) & in N. Am. Flora 5: 97 (1965).

O. taraxacifolia (Hort. ex Sweet) Lévl. & Guffr. in Lévl., Monog. Onoth. 73 (1902) p.p.

Léveillé also cited *O. taraxacifolia* var. *caulescens* Lévl. (p. 76) but no specimens were cited.

UNPLACED OENOTHERA

O. erosa Lehm. in Linnaea 3, 2: Litt. 8 (1828).

O. communis Lévl. race *erosa* (Lehm.) Lévl., Monog. Onoth. 370 (1909).

The description of *O. erosa* appears under a note to the effect that since the founding of the Botanic Garden in Hamburg in 1820 (?) seed catalogues had been issued, several of which had carried diagnoses of new plants. These were given again in Linnaea for the benefit of botanists. The distribution of *O. erosa* is given as "Prom. bon. sp." — Cape of Good Hope.

Léveillé gave the same distribution citing "*Boivin, du Petit Thouars, Zeyher*".

? *O. fruticosa* L. race *spachiana* (Torr. & Gray) Lévl. var. *maculata* Lévl., Monog. Onoth. 107 (1902).

Trapa antennifer Lévl. = *Trapella sinensis* Oliv. (Pedaliaceae)

871. *Trapa incisa* Sieb. & Zucc. in Abh. Akad. Münch. 4, ii: 134 (1846).

? *T. natans* L. var. *incisa* Lévl. in Le Monde des Pl. 5: 124 (1896).

T. natans L. var. *incisa* (Sieb. & Zucc.) Makino in Bot. Mag. Tokyo 11: 283 (1897) — non Lévl.

JAPAN. Akita, 6 ix 1894, *Faurie* 13777 (typus var. *incisa* Lévl. — n.v.).

PASSIFLORACEAE

872. *Passiflora cupiformis* Mast. in Hook., Icon. Pl. 18: t. 1768 (1888); Wang in Acta Phytotax. Sin. 6: 233 (1957).

P. franchetiana Hemsl. in Hook., Icon. Pl. 27: sub. t. 2623 (1899); Cusset in Adansonia n.s. 7: 375 (1967).

P. seguini Lévl. in Bull. Acad. Géog. Bot. 11: 174 (1902); Hand.-Mazz., Symb. Sin. 7: 384 (1931); Rehder in Journ. Arn. Arb. 18: 225 (1937).

CHINA. Kweichow, cascade de Hoang-ke-chou, sur les rochers, liane herbacée, 11 vi 1898, *Seguin* 2350 (holo. *P. seguini*, E).

Dr W. J. J. O. de Wilde of Leiden has been working on the Malesian and SE Asian Passifloraceae and he is of the opinion that *P. seguini* and *P. franchetiana* are synonymous with *P. cupiformis*. I am grateful to Dr. Wilde for his permission to express this opinion here.

CUCURBITACEAE

873. *Actinostemma biglandulosum* Hemsl. in Hook., Ic. Pl. 27: t. 2622 (1899) & t. 2645 (1900); Cogn. in Pflanzenr. 4. 275 (1): 38 (1916).

Hemsleya esquirolii Lévl., Fl. Kouy-Tchéou 122 (1914).

CHINA. Kweichow, "Lat sang" (?), rivière, *Esquirol* s.n. (holo. *H. esquirolii*, E).

874. *Coccinia grandis* (L.) Voigt, Hort. Suburb. Calc. 59 (1845); C. Jeffrey in Fl. Trop. E. Afr. (Cucurbitaceae) 68 (1967).

Bryonia grandis L., Mant. 1: 126 (1767).

Coccinia cordifolia sensu Cogn. in DC., Monog. Phan. 3: 529 (1881) & sensu Chakravarty in Rec. Bot. Surv. Ind. 17: 117 (1959) — non (L.) Cogn. sensu stricto.

Melothria touchanensis Lévl., Fl. Kouy-Tchéou 122 (1914).

CHINA. Kweichow, Tou-chan, ix 1899, Bodinier s.n. (holo *M. touchanensis*, E).

875. *Gynostemma pentaphyllum* (Thunb.) Makino in Bot. Mag. Tokyo 16: 179 (1902); Rehder in Journ. Arn. Arb. 15: 27 (1934); Hand.-Mazz., Symb. Sin. 7: 1066 (1936); Kitamura in Acta Phytotax. & Geobot. 13: 109 (1943); Chuang in Taiwania 12: 121 (1966); Lauener in Notes R.B.G. Edinb. 27: 286 (1967).

Vitis pentaphylla Thunb., Fl. Jap. 105 (1784).

Vitis martini Lévl. & Van in Bull. Soc. Agric. Sci. Arts Sarthe 40: 41 (1905) & in Fedde, Rep. Sp. Nov. 2: 159 (1906); Lévl., Fl. Kouy-Tchéou 28 (1914) & Cat. Pl. Yunnan 8 (1916).

Vitis quelpaertensis Lévl. in Fedde, Rep. Sp. Nov. 10: 351 (1912).

Vitis mairei Lévl. in Fedde, Rep. Sp. Nov. 11: 299 (1912) — non 1909.

CHINA. Kweichow, environs de Gan-pin, liane sous-lign. rampant sur les rochers, grandes rocaïlles près du Sy-men, en fruits 20 ix 1897, 2 viii 1897, Martin & Bodinier 1791 (holo. *V. martini*, E.). Yunnan, grottes de Pan long se, 2500 m, plante vivace grimpante, fl. blanches en grappes lâches. ix 1911, E. E. Maire s.n. (holo. *V. mairei*, E).

KOREA. Quelpaert in sylvis Hallaisan, x 1909, Taquet 2745 (holo. *V. quelpaertensis* E).

876. *Lagenaria siceraria* (Molina) Standley in Publ. Field. Mus. Nat. Hist. Chicago Bot. ser. 3: 435 (1930); C. Jeffrey in Fl. Trop. E. Afr. (Cucurbitaceae) 51 (1967).

Cucurbita siceraria Molina, Sagg. Chil. 133 (1782).

Cucurbita leucantha Duch. ex Lam., Encycl. 2: 150 (1786), nom. illegit.

Lagenaria vulgaris Ser. in Mém. Soc. Phys. Hist. Nat. Genève 3, 1: 25, t. 2 (1825); Cogn. & Harms in Pflanzenr. 4. 275 (2): 201 (1924).

L. leucantha Rusby, Mem. Torr. Bot. Club 6: 43 (1896); Chakravarty in Rec. Bot. Surv. Ind. 17: 66 (1959).

Cucumis mairei Lévl., Cat. Pl. Yunnan 64 (1916).

CHINA. Yunnan, plaine de Tong-tchouan, 2500 m, coloquinte cultivée et subspontanée, fl. blanches, ix 1912, E. E. Maire s.n. (holo. *C. mairei*, E).

Melothria violifolia Lévl. = *Codonopsis micrantha* Chipp (Campanulaceae).

877. *Momordica charantia* L., Sp. Pl. 1009 (1753); Cogn. & Harms in Pflanzenr. 4. 275 (2): 24 (1924); Chakravarty in Ind. Journ. Agric. Sci. 16:

44 (1946) & in Rec. Bot. Surv. Ind. 17: 88 (1959) & in Bull. Inst. Fond. Afr. Noire ser. A, 30: 433 (1968); Chuang in Taiwan 12: 126 (1966).

Sicyos fauriei Lévl. in Fedde, Rep. Sp. Nov. 10: 150 (1911).

Cucumis argyi Lévl. in Mem. Real Acad. Ci. Artes Barcelona, ser. 3, 12: 548 (1916).

HAWAII (SANDWICH ISLANDS). Oahu, Kaliki, x 1909, *Faurie* 877 (holo. *S. fauriei* — n.v.).

CHINA. Kiangsu, d'Argy s.n. (holo. *C. argyi*, E).

878. *Thladiantha henryi* Hemsl. in Journ. Linn. Soc. Bot. 23: 316 (1887).

T. verrucosa Cogn. in Pflanzenz. 4. 275 (1): 49 (1916), syn. nov.

Melothria pustulata Lévl., Cat. Pl. Yunnan 65 (1916).

M. mairei Lévl., l.c. 65 (1916).

CHINA. Yunnan, plaine de Tong-tchouan, 2500 m, v 1912, *E. E. Maire* s.n. (holo. *M. pustulata*, E.); plaine et coteaux à Tong-tchouan, 2500 m, v 1912, *E. E. Maire* s.n. (holo. *M. mairei*, E).

879. *Thladiantha hookeri* C. B. Clarke var. *palmatifolia* Chakravarty f. *quinquefoliata* Chakravarty in Notes R.B.G. Edinb. 20: 122 (1948) & in Rec. Bot. Surv. Ind. 17: 129 (1959).

T. digitata Lévl., Cat. Pl. Yunnan 76 (1916).

CHINA. Yunnan, rochers des coteaux à Kiao Kia, 600 m, bryone à gros tubercule, grimpante, fl. jaunes, vi 1912, *E. E. Maire* s.n. (holo. *T. digitata*, E).

880. *Thladiantha nudiflora* Hemsl. in Journ. Linn. Soc. Bot. 23: 316, t. 8 (1887); Cogn. in Pflanzenz. 4. 275 (1): 45 (1916); Chuang in Taiwan 12: 129 (1966).

Cucumis courtoisii Lévl. in Mem. Real Acad. Ci. Artes Barcelona, ser. 3, 12: 548 (1916).

CHINA. Kiangsu, Vou Sié, d'Argy s.n. (holo. *C. courtoisii*, E).

881. *Trichosanthes bracteata* (Lam.) Voigt, Cat. Hort. Suburb. Calc. 58 (1845); Chakravarty in Rec. Bot. Surv. Ind. 17: 44 (1959); Chuang in Taiwan 12: 131 (1966).

Modecca bracteata Lam., Encyc. 4: 210 (1797).

Trichosanthes dunniana Lévl. in Fedde, Rep. Sp. Nov. 10: 148 (1911) & Fl. Kouy-Tchéou 123 (1914) & Cat. Pl. Yunnan 65 (1916).

CHINA. Kweichow, Tchen-Fong, rochers, plante grimpante, délaçant tôt, 18 vii 1905, *Esquirol* 726 (holo. *T. dunniana*, E).

882. *Trichosanthes ovigera* Bl., Bijdr. 934 (1826).

T. cucumeroides (Ser.) Maxim. ex Franch. & Sav., Enum. Pl. Jap. 1: 172 (1873); Hand.-Mazz., Symb. Sin. 7: 1065 (1936); Chuang in Taiwan 12: 132 (1966), syn. nov.

Bryonia cucumeroides Ser. in DC., Prodr. 3: 308 (1828).

Trichosanthes cavaleriei Lévl., Fl. Kouy-Tchéou 123 (1914).

CHINA. Kweichow, environs de Kouy-yang, près du collège, grande liane herbacée, grimpant aux arbres qu'il couvre de ses larges feuilles, fl. blanches, 9 vi 1898, *Bodinier* 2306 (syntype *T. cavaleriei*, E.); Pin-fa, bois, fr. couleur tomate, ix 1904, *Cavalerie* 1816 (syntype *T. cavaleriei*, E); Pin-fa, fl. blanches 3 vi 1903, *Cavalerie* 1032 (syntype *T. cavaleriei* E — n.v.)

883. *Zehneria maysorensis* (Wight & Arn.) Arn. in Hook., Journ. Bot. 3: 275 (1841); C. Jeffrey in Kew Bull. 15: 366 (1962).

Bryonia maysorensis Wight & Arn., Prodr. Fl. Pen. Ind. Or. 1: 345 (1834).

Melothria mucronata sensu Cogn. in DC., Mon. Phan. 3: 608 (1881) & in Pflanzenr. 4. 275 (1); 108 (1916) pro parte; sensu Chakravarty in Ind. Journ. Agric. Sci. 16: 70 (1946) & in Rec. Bot. Surv. Ind. 17: 149 (1959) — non (Bl.) Cogn.

M. bodinieri Lévl., Fl. Kouy-Tchéou 122 (1914).

M. argyi Lévl. in Mem. Real Acad. Ci. Artes Barcelona, ser. 3, 12: 548 (1916).

CHINA. Kweichow, environs de Kouy-yang, dans les jardins, les haies, pet. fl. blanches, ix, x 1897, *E. Bodinier* 1957; Tou-yun, 25 vii 1905, *Cavalerie* 2482 (syntypes *M. bodinieri*, E). Kiangsu, "San Kia Mia" (?), fruit rond, blanc, d'*Argy* s.n. (holo. *M. argyi*, E).

UNPLACED

Actinostemma chaffanjonii Lévl., Fl. Kouy-Tchéou 121 (1914).

CHINA. Kweichow, Kouy-yang, mont. du collège, v. 1898, *Chaffanjon* in herb. *Bodinier* (holo. — n.v.).

This specimen has been in the Lévillé herbarium but I have not found it. It is possible that it has been renamed in another family and may be found later.

BEGONIACEAE

884. *Begonia cavaleriei* Lévl. in Fedde, Rep. Sp. Nov. 7: 20 (1909) & Fl. Kouy-Tchéou 46 (1914); Irmsch. in Mitt. Inst. allg. Bot. Hamburg 6: 354 (1927) & 10: 512 (1939).

B. cavaleriei Lévl. var. *pinfaensis* Lévl. in Fedde, Rep. Sp. Nov. 7: 20 (1909) p.p. quoad syntype *Cavalerie* 908 & Fl. Kouy-Tchéou 46 (1914).

B. esquirolii Lévl., in Bull. Acad. Géog. Bot. 22: 228 (1912) & Fl. Kouy-Tchéou 46 (1914).

CHINA. Kweichow, environs de Tou-chan, 1898, *Cavalerie* 2592; district de Tin Fan, 1899, *J. Layes* s.n. (syntype *B. cavaleriei* — n.v.); Pin-fa, rochers, fl. roses odor. 17 iii 1903, *Cavalerie* 908 (syntype *B. cavaleriei* var. *pinfaensis*, E); caverne à Thay-Lo, 29 ii 1911, *Esquirol* 2601 (holo. *B. esquirolii* — n.v.).

Neither the syntypes of *B. cavaleriei* nor the type of *B. esquirolii* are present in the Lévillé Herbarium at Edinburgh, and do not appear ever to have been so.

885. *Begonia cavaleriei* Lévl. var. *pinfaensis* Lévl. in Fedde, Rep. Sp. Nov. 7: 20 (1909) p.p. quoad syntype *Cavalerie* 917 & Fl. Kouy-Tchéou 46 (1914); Irmsch. in Mitt. Inst. allg. Bot. Hamburg 10: 512 (1939).

CHINA. Kweichow, Pin-fa, près d'une grotte, fl. beau rose, 15 iii 1902, *Cavalerie* 917 (syntype var. *pinfaensis*, E).

886. *Begonia edulis* Lévl. in Fedde, Rep. Sp. Nov. 7: 20 (1909) & Fl. Kouy-Tchéou 46 (1914); Irmsch. in Mitt. Inst. allg. Bot. Hamburg 10: 539 (1939); Yu in Bull. Fan. Mem. Inst. Biol. n.s. 1: 123 (1948).

CHINA. Kweichow, Li-sen, ouest de Lo-fou, la tige se mange en guise de légumes, 9 xi 1905, *Cavalerie* 2651 (holo. *B. edulis*, E).

887. *Begonia gemmirhiza* Lévl. in Fedde, Rep. Sp. Nov. 9: 450 (1911).

CHINA. Hopei (Tché-Ly), Hou-Hou-Chai (Ping Chan), viii 1910, *Chanet* s.n. (holo. E).

Professor Irmscher labelled this specimen "An Begoniaceae?" and did not mention it in his 1939 paper. The specimen consists only of three separate leaves.

888. *Begonia grandis* Dry. "conta evansiana (Andr.) Irmsch." in Mitt. Inst. allg. Bot. Hamburg 10: 492 (1939).

B. evansiana Andr., Bot. Repos. 10: pl. 627 (1811).

B. discolor Ait., Hort. Kew. ed. 2, 5: 284 (1813); Lévl., Fl. Kouy-Tchéou 46 (1914).

B. erubescens Lévl. in Fedde, Rep. Sp. Nov. 7: 21 (1909) & Fl. Kouy-Tchéou 46 (1914).

CHINA. Kweichow, environs de Gan-pin, dans les bois de He-Che-Teou, belles fleur roses, dessous des feuilles rouges, 8 viii 1897, *Martin & Bodinier* 1793 (syntype *B. erubescens* — n.v.); pic de He-Che-Teou, pied des rochers, 20 ix 1897, *Martin & Bodinier* 1854 (syntype *B. erubescens* — n.v.); la rivière Leao-mié, 20 viii 1907, *Cavalerie* 3283 (syntype *B. erubescens*, E).

In his 1939 paper cited above, Professor Irmscher (p. 461) defined his terms "conturma (conta)" and "euturma (euta)" and used them as infra-specific categories. Edinburgh specimens which were determined by Irmscher in 1956 bear labels which show that he then regarded these ranks as equivalent to subspecies, but the combinations at subspecific rank do not appear to have been published.

889. *Begonia grandis* Dry. "conta sinensis (A. DC.) Irmsch." in Mitt. Inst. allg. Bot. Hamburg 10: 494 (1939).

B. sinensis A.DC. in Ann. Sc. Nat. ser. 4, 11: 125 (1859).

B. martini Lévl. in Bull. Soc. Agric. Sci. Arts Sarthe 39: 323 (1904), in Fedde, Rep. Sp. Nov. 6: 376 (1909) & Fl. Kouy-Tchéou 46 (1914).

B. bulbosa Lévl. in Fedde, Rep. Sp. Nov. 7: 21 (1909) & Fl. Kouy-Tchéou 46 (1914).

CHINA. Kweichow, environs Gan-pin, sous les grands rochers, surplombant une dépression en forme de cirque, fleurs roses, 20 ix 1897, *Martin & Bodinier* s.n. (holo. *B. martini* — n.v.); Yang-Kia-Tchong, sous bois, pentes, 25 vii 1905, *Cavalerie* 2450 (holo. *B. bulbosa*, E).

890. *Begonia henryi* Hemsl. in Journ. Linn. Soc. (Bot.) 23: 322 (1887); Irmsch. in Mitt. Inst. allg. Bot. Hamburg 6: 346 (1927) & 10: 520 (1939).

B. mairei Lévl. in Bull. Acad. Géog. Bot. 22: 228 (1912) & Cat. Pl. Yunnan 17 (1916).

CHINA. Yunnan, rochers sous bois à Pan-Long-Se, 2500 m, ix 1911, *E. E. Maire* s.n. (holo. *B. mairei* — n.v.).

891. *Begonia labordei* Lévl. in Bull. Soc. Agric. Sci. Arts Sarthe 39: 323 (1904), in Fedde, Rep. Sp. Nov. 6: 376 (1909), Fl. Kouy-Tchéou 46 (1914) & Cat. Pl. Yunnan 17 (1916); Irmsch. in Mitt. Inst. allg. Bot. Hamburg 6: 356 (1927) & 10: 503 (1939); Yu in Bull. Fan. Mem. Inst. Biol. n.s. 1: 115 (1948).

B. polyantha Lévl., Cat. Pl. Yunnan 17 (1916) in adnot.

CHINA. Kweichow, montagnes de Kao-po, fleurs roses, fleurissant sous la pluie d'une cascade dans une avant-grotte, 11 ix 1899, *Laborde & Bodinier* 1952 bis (syntype *B. labordei* — n.v.); sous-pref, de Tchen-lin, à Lo-pie, parois d'une grotte, tige florales portant de la racine, fleurs roses, feuil. rouges en dessous, 8 x 1897, *Martin & Bodinier* 1952 (syntype, *B. labordei*, E); sine loc., *Cavalerie* s.n. (holo. *B. polyantha*, E).

892. *Begonia laciniata* Roxb. "euta principalis Irmsch." in Mitt. Inst. allg. Bot. Hamburg 10: 530 (1939).

B. edulis Lévl. var. *henryi* Lévl. in Fedde, Rep. Sp. Nov. 7: 20 (1909) & Cat. Pl. Yunnan 17 (1916).

CHINA. Yunnan, Henry 12250 (holo. *B. edulis* var. *henryi*, E).

893. *Begonia lipingensis* Irmsch. in Mitt. Inst. allg. Bot. Hamburg 6: 353 (1927) & 10: 540 (1939).

B. pedatifida Lévl. var. *kewensis* Lévl. in Fedde, Rep. Sp. Nov. 7: 22 (1909)

CHINA. Kweichow, *Esquirol* 226 p.p. (holo. *B. edulis* var. *kewensis*, E).

Although Léveillé cited *Cavalerie* as the collector, a note by J. D. Hooker on the sheet concerned shows that the *Begonia* specimen was part of a collection by *Esquirol* (no. 226) of *Impatiens cyanantha* Hook. f. In his protologue of var. *kewensis* under the citation of the specimen, Léveillé wrote "mixta cum *Impatiens cyanantha* Hook, f. (Jul. *Cavalerie*)".

894. *Begonia parvula* Lévl. & Van. in Fedde, Rep. Sp. Nov. 2: 113 (1906) & Fl. Kouy-Tchéou 46 (1914); Irmsch. in Mitt. Inst. allg. Bot. Hamburg 10: 521 (1939).

CHINA. Yunnan, grotte où tombe la rivière au-dessous de Ta-Ly-Tchou, x 1904, *Esquirol* 146 (holo. — n.v.).

895. *Begonia pedatifida* Lévl. in Fedde, Rep. Sp. Nov. 7: 21 (1909), Fl. Kouy-Tchéou 46 (1914) & Cat. Pl. Yunnan 17, f. 2 (1916); Irmsch. in Mitt. Inst. allg. Bot. Hamburg. 6: 349 (1927) & 10: 541 (1939).

CHINA. Kweichow, Ma-jo, à l'ombre près des cascades, pourtous, beau rose-rouge, centre blanc cire incarnal transparent, charnu, 23 vii 1907, *Cavalerie* 3072 (syntype, E); Pin-fa, sud-ouest bord torrent, 21 viii 1902, *Cavalerie* 262 (syntype, E.).

896. *Begonia porteri* Lévl. & Van. in Fedde, Rep. Sp. Nov. 9: 20 (1910) & Fl. Kouy-Tchéou 46 (1914); Irmsch. in Mitt. Inst. allg. Bot. Hamburg 10: 554 (1939).

B. belli Lévl., Fl. Kouy-Tchéou 45 (1914).

CHINA. Kweichow, Lo-fou, x 1908, *Cavalerie* 3607 (holo. *B. porteri*, E); chemin de Pettiang, 800 m, rochers, blanche, vii 1912, *Esquirol* 3738 (holo. *B. belli*, E).

897. *Begonia yunnanensis* Lévl. in Fedde, Rep. Sp. Nov. 7: 20 (1909) & Cat. Pl. Yunnan 17, f. 3 (1916); Irmsch. in Mitt. Inst. allg. Bot. Hamburg 10: 500 (1939); Yu in Bull. Fan. Mem. Inst. Biol. n.s. 1: 120 (1948).

B. yunnanensis Lévl. var. *hypoleuca* Lévl., Cat. Pl. Yunnan 17 (1916) nom. nud.

CHINA. Yunnan, Szemao, 4000 ft., pink fls., *Henry* 12403 (iso. *B. yunnanensis*, E).